PROSPECTUS.

PROSPECTUS.

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THE R. I. MEDICAL SCIENCE MONTHLY.

A MONTHLY REVIEW OF REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

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The undergraduates in attendance last year numbered 351, making, with the 56 graduates, 407 in all.

This is an increase over the attendance previous to 1888 of 62.5 per cent. The students from Rhode Island numbered 210, against 138 in 1888, an increase of 34 per cent.; those from outside Rhode Island, 193 against 110 in 1888, an increase of 75 per cent. The University is certainly prosperous in all ways.

In every department of instruction the University is expanding most rapidly, and the cry is raised that the old quarters are inadequate and "totally outgrown." Especially is this the case with the Chemical Laboratory, the Botanical Laboratory, the recitation rooms in Sayles Hall and the Library Building.

The most notable signs of remarkable and timely progress at the University are: The establishment of a Women's College, which already numbers 9 in the Sophomore class, 14 in the Freshman class and 18 special students, a total of 41, after only one year's experience; the University Extension scheme, in operation now about one year, has been perfectly successful, and neither in England or elsewhere in this country has the Extension found such acceptance among the people as in Rhode Island; the free public lectures given during the term at the University upon various instructive topics have been very successful; the extended instruction for graduate degrees promises to be quite an important and popular undertaking and is rapidly developing the institution into a true University, is eagerly sought by many, and the Professors seem to like it, as it forces them into fresh investigations. The new Modern Language Library, selected with admirable care and fine taste by Prof. Williams during his residence in Germany last year, and paid for by a generous gift from Mr. Conant, of Pawtucket, is certainly an invaluable addition to the University, and the Library is one of the best in the United States.

Many more signs of true advance and progress might be mentioned but for lack of time and space.

It is certain that Brown University has always occupied, and does now occupy, as it never did before, a prominent place in the front rank of American cducational instutitions, and we delight to speak of its grand history, its remarkable progress, the great men it has produced, its able President and Professors, Fellows and Trustees, and point with intense feelings of reverence and pride to *our own Alma Mater.* J. F. H.

CHEMISTRY.

SIMPLE METHODS OF TESTING DRINKING WATER.

By Dr. E. LESSER,
Analytical Chemist, Pawtucket, R. I.

THE proper examination of drinking water requires not only much time but is also very expensive.

The purpose of the following article is to give physicians directions how to test drinking water in a very short time, without employing expensive apparatus and complicated methods.

The necessary requirements for a good drinking water are :

(a) The water should be clear, colorless, odorless and should have a refreshing taste ;

(b) the water should not contain ammonia, nitrous acid, hydrogen sulphide, and albuminoid substances ;

(c) the water should be free from salts of any poisonous metal ;

(d) the total amount of organic and inorganic matter (composed of chlorides, sulphates and nitrates), should not be larger than O, 5 grams per liter ; a water containing more than the latter quantity is to be condemned on that account alone.

1. CLEARNESS, COLOR AND ODOR.

The first named qualities of a good water may be ascertained in long test tubes standing on a sheet of white paper. When we see from below through the water it should be clear and colorless ; for the sake of comparison a test tube filled with distilled water may be placed beside the first one. Very often clear water is rendered turbid after prolonged observation. This is caused either by the presence of micro-organisms or by decomposition of the dissolvable acid carbonates into insoluble normal carbonates, when the water is deprived of carbon dioxide by exposure to air.

A yellow colored water either contains oxides of iron or comes from a marshy soil.

A good drinking water should be completely odorless. To test it in this regard a small quantity mixed with some drops of potassium hydrate is warmed to 40° C. Any present odor will be observed even by not very well educated noses.

2. AMMONIA.

Five drops of a solution of sodium hydrate and 10 drops of sodium

carbonate solution are added to 100cc of the water to be tested. Thereupon the clear filtrate is mixed with 10 to 20 drops of Nessler's reagent. If any shade of yellow or brown color is produced by this, ammonia is present in the water.

Nessler's reagent may be made in the following manner: 35 grams of potassium iodide and 13 gms. of mercuric chloride are dissolved in 100cc of distilled water by the aid of heat and agitation. A cold saturated solution of mercuric chloride is then added, drop by drop, until the red precipitate which is formed is no longer re-dissolved on agitation; 160 gms. of potassium hydrate are then dissolved in the liquid, to which a slight excess of mercuric chloride solution is finally added and then the bulk of the whole made up to one liter with water. The solution is allowed to stand, decanted and then preserved in well stoppered bottles.

3. NITROUS ACID.

(a) 100cc of the water are mixed with some drops of concentrated sulphuric acid and 10-15 drops of a solution of iodide of zinc-starch. When the water instantly or after a few minutes assumes a blue color, nitrous acid is present.

The iodide of zinc-starch solution may be prepared by mixing 4 parts of iodide of zinc, 1 part of starch and 20-30 parts of distilled water. The whole bulk is warmed in a small porcelain dish until a paste is formed;

(b) 100cc of the water are mixed with 1cc of dilute sulphuric acid and 1cc of a solution of Metadiamidobenzol (Phenyldiamine). Even if very small traces of nitrous acid are in the water it changes into a yellow or reddish yellow color.

For the solution of Metadiamidobenzol 5 gms. of this preparation are dissolved in 1 liter of water.

4. HYDROGEN SULPHIDE.

(a) This contamination in water may be perceived very often by its odor of rotten eggs;

(b) when a paper moistened with lead acetate solution is held over the boiling water this paper is blackened if hydrogen sulphide is present;

(c) the water is mixed with some drops of sodium hydrate solution and some drops of sodium nitroprussiate solution, when the water assumes a red or red-violet color, hydrogen sulphide is in the water.

5. ALBUMINOID SUBSTANCES.

To test for the presence of these substances we use a solution of 1 part

of tannic acid in three parts of water and 1 part of alcohol. 200cc of the water mixed with 10cc of the above mentioned solution should remain clear at least 5 to 6 hours.

6. POISONOUS METALS.

1 liter of the water is reduced by boiling to 100cc in a porcelain or platinum dish. To the rest acidulated with hydrochloric acid solution ammonium sulphydrate is added. If a dark color is produced the water is contaminated with a poisonous metal, whose nature is then to be determinated by appropriate chemical tests.

To test for lead the following methods may be used: The dark precipitate produced by ammonium sulphydrate is filtrated and dissolved in hot concentrated nitric acid; to the liquid diluted with distilled water sulphuric acid is added. A white precipitate of lead sulphate, which is formed, manifests the presence of lead in the water.

7. CHLORIDES.

The water to be tested is acidulated with nitric acid and mixed with silver nitrate solution. A large flocculent precipitate signifies a large amount of chlorides, a small turbidness (opalescence), only, means that there are such quantities as should always be present in a good water.

8. SULPHATES.

To a sample of the water acidulated with hydrochloric or nitric acid some drops of barium chloride solution are added. A large precipitate manifests an excessive amount of sulphates; whereas a small turbidness indicates only traces of them, which are found even in the best water.

9. NITRATES.

By means of a glass-staff some drops of the water to be tested are brought into a white small procelain dish, 2–4 drops of brucine (or sulphanilic acid) solution are added and the whole well mixed by moving the dish to and fro. To this, concentrated sulphuric acid is added drop by drop. When a considerable amount of nitrates is present in the water, the first drop of sulphuric acid produces a red color; when this red color does not appear until after the addition of the fifth drop, only traces of nitrates are present.

10. ORGANIC MATTER.

(a) Nearly half a liter of the water is evaporated to dryness in a porcelain dish on a water-bath, the residue dried at 110°–120° C. and then

heated. When the residue assumes a brown or black color, the presence of organic matter is certain.

(b) To 100cc of the water some drops of dilute potassium permanganate solution are added and the whole acidulated with sulphuric acid. When the water, which at first has a red color, becomes discolored after a short boiling, organic matter is in the water.

After having thus given a short sketch of how a physician can easily and without much expense and loss of time test a drinking water, I intend to explain in another article, how the results obtained by the analysis may be used for determining the purity and wholesomeness of a drinking water.

PHYSIOLOGICAL CHEMISTRY.

ABOUT THE INFLUENCE OF CANTHARIDINE-SALTS.

O. LIEBREICH.

IN opposition to M. Kahn's observations, that cantharidine-salts in solution and in small quantities have a bad influence on the nervous system, O. Liebreich holds that this influence is not so great. He made hundreds of injections upon patients and found that, by employing the cantharidine-salts in the right manner and with sufficient attention, there is as little danger as in the case of employing mercuric, arsenic and other severe preparations.—*Therapeutische Monatsschrift, 1892, 6.*

A PROPHYLACTIC REMEDY FOR CHOLERA.

T. Kursmann, a physician at Szegedin (Hungaria), employed with great success for several cholera-epidemics a solution of quinine in rum or cognac brandy. The effect was always surprising; the diarrhœa ceased immediately; the indisposition disappeared and not a single case of cholera broke out.—*Wiener Medicinische Blätter, Aug. 9, 1892.*

It is our intention to establish a Department for Pharmacy, in the R. I. Medical Science Monthly as soon as possible and we invite the Pharmacists generally, particularly members of the various Pharmaceutical Associations, to keep this department filled with timely and interesting papers, discussions and queries.

How would it do to appoint an editorial committee of each association to have charge of such a department?

We invite you to think about it and if you think favorably of it, do it.

What we have said of the Pharmacists applies also to the Dentists. It is our intention to open a department also for this profession. Would you like to have it?

OBSTETRICS.

RECENT PERMANENT ADVANCES IN OBSTETRICS, WITH COMMENTS.

By L. F. C. GARVIN, M. D.,

Member of the R. I. Medical Society, etc.

READ BEFORE THE PROVIDENCE MEDICAL ASSOCIATION, DECEMBER, 1892.

IT HAS been customary for members of this society, in presenting papers upon recent advances in any department of medicine, to deal with the changes of the past twelve months. Such theses are of great value, inasmuch as they summarize and systematize the medical literature of the year for the benefit of us all.

The chief criticism to be made upon such essays is that changes are not always advances, and that next year it may become necessary to reject what at the present time is recommended. When, however, by the term "recent advances" a series of years is understood to be embraced, it becomes possible to fix upon improvements, which, having stood the test of time, may be reckoned as permanent in character. To this end I shall, this evening, speak of some of the changes in the obstetric art peculiar to the past quarter of a century.

In comparing a good text-book upon obstetrics published in the sixties with one just issued from the press, one will, I think, be surprised at the really few alterations in the method of conducting a case of labor, whether natural or difficult. It is true that the details of diagnosis and prognosis, and consequently of rational treatment, have been more carefully worked out, to the great assistance of the practitioner and to the advantage of his patient; but the skilful obstetrician of the year 1862 managed his case in most respects very much as he would now. Let me enumerate some of the differences: First, the use of drugs which were unknown thirty years ago, as chloral and pylocarpine in eclampsia. Secondly, anticepsis. Thirdly, immediate operation for laceration of the perinæum. Fourthly, external and bipolar version. Fifthly, axis-traction forceps. Some of these improvements have already been treated exhaustively before this society, and therefore will not be touched upon in this paper. To a few, however, I will briefly refer.

THE USE OF FORCEPS

is undoubtedly more frequent than was the case a generation ago, when Dr. Collins, in charge of the Dublin Lying-in-Hospital, used the forceps only once in 694 cases. This, to be sure, was an extreme instance, but from Dr. Churchill's work of that date it appears that in 147,645 cases of labor among British practitioners, 1 in 249 were forcep cases. In 47,475 labor cases among the French, 1 in 140 were forcep cases. And in 755,593 labor cases among the Germans, 1 in 106 1-2 were forcep cases. Probably no member of this society now applies forceps so infrequently as once in one hundred labor cases.

My opinion is that at the present time the tendency is to use forceps too often. At all events, it is not an uncommon thing for patients to come under my observation who are suffering from the effects of instrumental delivery, and when, from the history given, it is manifest that nature should not have been interfered with. I am perfectly aware that the statements of a patient as to treatment by another physician are to be received with a great deal of caution, but when in the case of a primipera artificial delivery has been resorted to after a very few hours of moderate labor pains, there can be no question that the resulting lesions were caused by undue haste on the part of the practitioner.

Most of the cases of malpractice—for I can call them by no milder term—have occurred in cities, and a number of them in the hands of physicians who make obstetric practice something of a specialty. So strong is the proof to my mind that some of these gentlemen interfere with nature, either to show their skill, or, what is more probable, to save their time, that I strongly advise any woman about to remove to a city to employ in confinement her regular family physician. It is a question whether there is any room in obstetric practice for the specialist. He is certainly much more useful as a consultant than when himself in charge of the case.

The reasons which may account for the greater readiness to apply forceps now than formerly are two. First, the statistics which have recently accumulated indicating that the loss of the child may be attributed at times to no other cause than the tediousness of the labor; and, secondly, the success which attends the immediate operation for laceration of the perinæum.

Delivery by forceps in cases of high arrest, that is to say, when the fœtal head is fixed at the brim of the pelvis or not yet engaged, is still so formidable an operation, fraught as it is with danger both to the mother and the child, that it is seldom undertaken lightly. The rules which held good with our predecessors have been but slightly modified by recent authorities, the somewhat increased frequency of this procedure being due to a more accurate estimate of pelvic capacity, a more care-

ful guaging of the possible endurance of mother and child, and the invention of axis-traction forceps.

With regard to the application of forceps in the latter part of the second stage, however, a very different status exists. Let me quote the general rules laid down by a recent author. [*Practical Midwifery*, by Edward Reynolds, 1892.]

"*Low Arrest from Inertia.*—When the contractions have been sufficiently powerful to effect the descent of the head into the excavation, but die away and are succeeded by an absence of progress at the inferior strait, the risks of the performance of a probably easy low-forceps operation are so small that it is usually proper to complete the delivery by instrumental means, after an hour has passed without any increase in the descent." Again he says of "*Low Arrest from Increased Resistance.*"—The application of forceps "may be properly undertaken as a matter of routine whenever the second stage has already consumed two hours and progress has been absent for one hour." The same author adds later: "*Indications for Low Forceps in Anterior Position*. . . . It is probably safe to say that when the second stage of labor has existed for two hours, and the rate of progress is such that there seems to be no probability that spontaneous delivery will occur within the next hour, the fœtal death rate is on the whole smaller if immediate delivery be resorted to than if such cases are left to nature."

To sum up these three recommendations in a single rule, the advice would seem to be that, when the head has reached the lower strait or perinæum, it is advisable to apply forceps at the end of two hours, if during the second hour there has been no progress, and even when progress is present, if delivery within the next hour seems improbable the occiput being anterior. The time allowed by the above rule to the unaided efforts of nature for the final delivery of the child certainly impresses me as being too short. When it is considered that low arrest occurs most frequently in primipara, and that it is usually due to resistance rather than inertia, artificial delivery with its almost necessary local injury ought not to be resorted to so soon, unless signs of exhaustion are manifest either in the mother or the child. The exceptions to such a rule would seem to be so numerous that it cannot be adopted safely as a routine practice.

TURNING.

Turning, unlike the use of forceps, has not greatly increased in frequency during the past quarter of a century. For malpositions of the head, such as brow and face presentations, podalic versions is resorted to oftener than formerly; but for placenta prævia other methods of treatment are now more frequently substituted than was then the case.

In Murphy's Midwifery, published in 1862, no reference is made to cephalic version. The first knowledge which I ever had of this procedure was derived from the venerable Doctor Capron shortly after the commencement of my practice in 1867. External and bi-polar versions were then unpracticed, if not unknown, consequently turning was not practicable until dilatation or dilatability was almost complete.

Now, however, not only external but bi-polar versions may be successfully tried early in the first stage of labor, thereby avoiding the shock to the mother and the liability to local injury attendant upon the introduction of the hand and wrist into the uterus.

Bi-polar version is specially applicable to cases of prolapse of the cord, when that most unfortunate accident is discovered before much dilatation of the os has taken place. The accomplishment in such a case of podalic version, without rupture of the membranes, and before the circulation of the cord has been interfered with by pressure, is certainly a great triumph of the obstetric art. Even if the presenting loop of the funis does not disappear in the process of turning, its prolapse becomes a much less serious matter when alongside the breech rather than the head of the child.

The possibility of bi-polar version is, likewise an added inducement to the early diagnosis of transverse presentations. The conversion of a shoulder or a lateral presentation into a cephalic, prior to the escape of any of the liquor amnii, marks a significant advance over the method of dealing with such abnormal positions a generation ago. This attempt at rectification almost always deserves to be made. In case of failure, or the accidental rupture of the membranes during the manipulation, the patient should be placed in the knee-chest position, forestalling the escape of the liquor amnii, and internal version, cephalic if possible, at once be affected.

Bi-polar version is also recommended in some cases of placenta prævia, and will be considered in connection with that topic.

PLACENTA PRÆVIA.

The advance which has been made in the treatment of placenta prævia, accounting for the fact that turning in this malposition has become less frequent, is shown by the following quotation from a recent work upon obstretrics: "*In Labor*, When the diagnosis of placenta prævia has been established, the first step in treatment, under all circumstances, should be an effort to insert the finger within the os to its full length; after which it should be made to detach the placenta from the whole of that portion of the lower uterine segment to which it can reach."—*Reynolds.*

It is safe to say that what is here recommended as a universal practice was seldom, if ever, made use of prior to the present generation. The therapeutics of placenta prævia is certainly greatly simplified by close conformity to the above quoted advice, but I incline to the opinion that the words, "under all circumstances," are too sweeping.

If the insertion of the placenta be marginal or partial, and the hæmorrhage has not already been exceedingly profuse, it is safer for the child and not dangerous to the mother to rupture the membranes without any previous separation of the placenta by the finger. The pressure of the fœtal head upon the placenta, aided, if need be, prior to its engagement by the gentle pressure of the fingers of the accoucheur, will often be sufficient to prevent any subsequent serious loss of blood; and, should the hæmorrhage continue, it is not too late then to make placental separation. Occasionally a case will occur, whether the implantation of the placenta be central or marginal, in which bi-polar version is desirable.

If hæmorrhage is profuse from the start, if it continues behind the tampon, or during the process of manual dilatation (partial separation of the placenta having previously been made) version should be attempted, although the os be yet small. Of course, the bi-polar method must be used. When the insertion is central, the performance of the operation requires that the fingers be passed directly through the substance of the placenta, a procedure, however, which is only justifiable when the life of a mother is in imminent danger.

An examination of the text-books and statistics of a quarter of a century ago gives the impression that in difficult labor mothers were injured and children were sacrificed unnecessarily by too great conservatism on the part of the obstetrician.

On the other hand, my conclusion is, that, at the present time, the pendulum has swung rather too far in the opposite direction of frequent interference with the physiological function of child-birth.

A HARD STATE FOR PRACTICE.

The Alabama State Medical Examining Board reject 41.16 per cent. of candidates who apply for license.—*Journal American Medical Association.*

And of this 41.16 per cent. of applicants that do not know enough to practice medicine in Alabama, such a per cent., as wish to be, are dumped upon Massachusetts, Rhode Island and Connecticut, and the inhabitants of the above-named states have to suffer. Nice, is it not?

A little friendly sympathy will encourage and spur us to extraordinary exertions; adverse criticism will only act like whipping a horse, the horse will go ahead faster but he may also indulge in some kicking.

MEDICINE.

IS HYPNOTISM A JUSTIFIABLE INQUISITORIAL AGENT?

By WM. L. PALMER, M. D.

TO answer this question affirmatively would be to endorse hypnotic agency in general; while a negative answer involves a condemnation of hypnotism not only for inquisitorial purposes, but for most other uses in which it may be employed. An answer to the question should therefore be prefaced by a brief consideration of the possible advantages to humanity involved in the use of hypnotism.

The advantages claimed are (1) psychological. Here the claim is well founded. To the psychologist and alienist, the demonstrations of uniform relations between mental phenomena and physical conditions, are important. Experiments in hypnotism certainly seem to promise to bring the mysterious processes, whereby sensations find expressions in ideas, and ideas in sensations, within the reach of scientific examination. When we see the face of a cataleptic assume a frown when his fist is doubled by the hypnotizer, and his arm adjusted as for a blow, and directly afterwards to smile, if his fingers are placed to his lips as in the act to throw a kiss, we seem on the threshold of the revelation of some mechanical law governing the reactions of body and mind. The phenomena of hypnotism are therefore legitimate objects for scientific investigation; and hypnotism is a justifiable agent when employed for purposes tending to increase human knowledge and power.

Advantages are also claimed (2) for hypnotism as a moral and educational agent.

It is said that the depraved have had the habitual current of thought turned away from things vile by the influence of suggestions. Such cases of purely subjection reformation have interest, but no exceptional value, as similar reformations are constantly occurring and become more lasting through enlightened religious, educational and social agencies; while these few and somewhat dubious cases of reform by suggestion, are overwhelmed by the numerous instances of hypnotics coerced into acts and emotions the reverse of elevating.

At the present time the records of hypnotism do not justify its use as an agent for education or moral reform, for the supreme axiom of education is: "Strengthen good habits by accustoming the will to act promptly; and strengthen the will by perpetual repetitions of choices"; or, from the physiological side: "Resist instability of nerve structure." Hyp-

notism undermines each and all these methods by supplanting the individual will through which alone a permanent modification of character is possible, in order to make place for the domination of another's personality.

Advantages are claimed (3) for hypnotism as a therapeutic agent. We must speak guardedly here, for the relief of human suffering is an end that appeals to all medical practitioners in a way calculated to hold in abeyance any objections offered to measures proposed for such relief.

Of the cases reported by the schools of Nancy and La Salpêtrière, a large majority are records of perverted or idiotic behavior and feeling on the part of hypnotic sensitives.

A small proportion are "cures." And these hypnotic "cures" effected by exciting in the patient an expectation or conviction of a cure, are paralleled by the cures of Faith Healers, Christian Scientists, and the like, who also operate by arousing an expectation of relief. The physician also, depends largely on expectation of cure for his success. But expectancy encouraged and relied upon by the physicians, differs in its nature from that aroused by the hypnotic or the empiric, in that it rests not upon a mere unreasoning emotion, but upon a rational confidence on the part of the patient, that the physician's knowledge of the healing art, and his wisdom in applying that knowledge, will accomplish a cure. That is, the expectant result—a cure—depends in the patient's mind, upon a sufficient and intelligible cause—the physician's skill. Or, if in certain cases, the confidence of the patient is of a purely emotional or unreasoning nature, then, as in the case of the hypnotist or empiric, the physician's cure is affected at the expense of the mental integrity of the patient; for by all known laws of mind and body, repeated submission to influence uncontroled by the reason and the judgment, tend to discourage self-possession, to impair self-control, and to increase nerve instability.

Admitting therefore, the possibility of hypnotic "cures," their result would be toward mental unsoundness, and the possible transmission to posterity, of inherited weakness and perversions. In hypnotic patients we should have the beginning of another defective class; through them we should manufacture new forms of idiocy and alienation. For these general reasons a negative answer should be given to the question: Is hypnotism justifiable as a inquisitorial agent?

In the case of the woman Bompard, recently tried for the murder of Gouffi, in Paris, the employment of hypnotism as an inquisitorial agent, was denied by the government. M. Liegeois asserted that if this woman was hypnotized she would give an account of the manner in which the murder was perpetrated. The proposal was rejected by the government on the ground "that the prisoner was a liar . . . and that

her mendacity would prevail, even in the hypnotic state, and that shamming could not be detected."

Apart from the general disadvantages of the use of hypnotism, the evidence does not warrant the belief at this time, that the testimony of the hypnotic as to a committed crime, can be accepted as evidence by which legal justice could be administered. The French Procureur Général, on the occasion of the trial referred to, said: "The consequence of that doctrine—inquisitorial hypnotism—would be that there would be no longer any morality or any conscience. Man would not be distinguishable from the brute creation; he would disappear in the anarchy of unpunished crimes."

The wave of interest in the subject of hypnotism at the present moment, resembles waves of interest in other occult influences, such as possession by devils, or witchcraft, mesmerism, spiritualism, etc., which have from time to time flowed into the current of human thought, and have ebbed again into the great ocean from whence they came, leaving neither permanent additions to human knowledge, nor power to mark their track.

THE SIGNIFICANCE OF OCULAR PAIN.

By FREDERICK T. ROGERS, M. D.

PAIN is Nature's alarm bell notifying us of impending danger and calling for relief, at once an evil and a blessing; it is the physician's privilege to be instrumental in assuaging its pangs and upon his skill in relieving the sufferer depends largely the esteem in which he is held by the laity.

The relation between cause and effect is too obvious in many of the ills of life to escape the notice of the unprofessional and they have no difficulty in ascribing the pain of an aching tooth or the throbbing of an external abscess to its real cause, but beyond these lie the multitude of reflexes and neuroses which demand the diagnostic skill of the physician and no class of cases require greater ability and more accurate differentiation to ascertain the cause of the trouble than does that of those who consult us for relief from pain in the eyes or brow.

Pain arising from traumatism or inflammatory conditions of the eye, its appendages or surrounding orbital tissues is so generally accompanied by objective signs of swelling or redness that little difficulty is experienced in ascertaining the cause, but there are certain conditions, not so easily determined, giving rise to pain which should be borne in mind in making a diagnosis, notably that of iritis, usually spontaneous

in its origin extending to temple and brow and increased by pressure and any use of the eye which demands activity of the iris.

Pain varying from a disagreeable sense of dragging or weight to excruciating agony associated with defective sight, anæsthesia of the cornea and the presence of haloes with increased tension of the globe should always carry to the observer's mind the possibility of glaucoma and no delay in making a diagnosis is admissible for this frequent and disastrous disease, susceptible of cure if recognized early; if neglected is almost sure to pass to that stage which marks another monument to medical inefficiency. Thought should also be given to the existence of choroiditis and the possibility of the pain being due to orbital cellulitis or periostitis.

The great majority of cases, are, however, of non-inflammatory origin and are classed as either accommodative, muscular or nervous asthenopia. The pain may be either slight or severe, in the eye or back of the eye, in the temple or brow and is ofttimes associated with reflex nausea or vomiting.

Asthenopia, dependant upon the use of the eyes, is intermittent in character and this fact usually stated by the patient, is almost pathognomonic of this condition. It may be due to the overcrowding of an already abnormal ciliary muscle in hypermetropia, the discrepancy between convergence and accommodation seen in the myopia, the imperfect or insufficient action of one or more of the extra-ocular muscles or it may be classed with that large number who suffer from nervous asthenopia, where, although careful examination reveals no error of refraction, or accommodation, no inequality of muscular action, the pain is nevertheless hard, persistent and referred to the eyes.

Either the retina, hypersensitive, tires of its work or the continued strain of muscular action cannot be borne, at all events there is some lack of tone in the nervous mechanism, probably of reflex origin, which will account for the pain. It is usually associated with general debility or some local irritation elsewhere in the body which is a drain upon the nervous force.

A general knowledge of the eye and its diseases will enable one to ascertain the cause of ocular pain inflammatory in its origin, but in the absence of such objective signs it is ofttimes difficult, without the aid of the oculist, to determine whether there is a refractive error which may be the exciting cause and it is the purpose of this article to call to the attention of the profession a simple yet correct method of determining the existence of refractive errors, the most frequent cause of asthenopia.

As legitimate and accurate as the stethoscope, as simple as the speculum, in every day use by physicians as an aid to diagnosis, is the Retinoscope for determining the presence of hypermetropia or myopia.

If in a darkened room at a distance of about forty inches from the eye we reflect from a small plane mirror into the eye of the patient the light from a gas flame or lamp placed over his head and look through a small central aperture, we notice the pupil glow with a bright red light.

If now the mirror be rotated on any axis the illuminated portion of the retina will move in the same direction while the movement of the emergent rays or the apparent motion will be determined by the refractive media of the eye under examination.

Now, rotating the mirror slightly on its vertical axis, we notice a shadow following the illuminated portion moving across the pupil, if it moves in the same direction as the motion of the mirror it indicates hypermetropia or weak myopia, less than $\frac{1}{40}$, if in the opposite direction it shows myopia.

To ascertain which condition exists it is only necessary to place before the examined eye a weak convex glass $\frac{1}{40}$; if now the movement is the same, we are sure of hypermetropia, if reversed we know it is myopia.

With this simple instrument we have a means at our disposal too valuable to be neglected in estimating the cause of headache and ocular pain revealing as it does to us the existence of a refractive error which uncorrected may prove an important etiological factor, and corrected a valuable therapeutic measure.

538 Broad Street, Providence, R. I.

A NEW CHEMICAL REAGENT TO TEST SUGAR IN URINE.

G. HOPPE-SEYLER.

A. Baeyer found in examining the artificial formation of indigo, that this preparation is formed by warming an alkaline solution of o-nitro-phenyl-propiolic acid with reducing agents.

G. Hoppe-Seyler uses this reagent to test sugar in urine. For this purpose he mixed 5cc=1 teaspoon of the alkaline solution with 10–15 drops of the urine to be tested and boils the whole half a minute. When the liquid turns a dark blue color, the presence of reducing agents, as sugar, is determined. Normal urine does not change its color, at the most it assumes a somewhat greenish color. Albuminous urine may also be tested in the same manner; the liquid undergoes no change, if the urine is mixed with acetic acid, in testing for the presence of albuminoids. This reaction has many advantages over others of the same kind:

(a) A solution of o-nitro phenyl-propiolic acid is always ready to use and is a very reliable reagent.

(b) The reaction may be effected with a very small quantity of urine.

(c) The reaction is not interfered with by the presence of albuminoids.—*Zeitschrift für Physiologische Chemie, 1892, 17.*

SURGERY.

THE NEW OPERATING PAVILION AT SABBATSBERGS HOSPITAL, STOCKHOLM, SWEDEN.

By J. FREDERICK HALLER, A. B., M. D.

(Written at Stockholm, 1892.)

THE question of a new operating room had long been agitated by Prof. Ivar Svenson, the chief surgeon of the hospital. In the summer of 1888 Dr. F. W. Warfvinge, superintendent and head of the medical staff of the hospital, visited several leading medical centres on the continent where new hospitals had been erected, with a view to obtaining for the proposed operating pavilion all the new equipments modern surgery and its followers have devised. With the knowledge we now possess about septic influences in wounds and that infection is usually derived from external causes, it is for surgeons of the greatest importance to try to prevent this infection. But this prevention is by no means easy, with micro-organisms all around us, and all our minute and scrupulous preparations for an operation and all our cares during the same, would not keep the infectious germs out, were it not for antiseptic remedies which kill and prevent the micro-organisms which have entered the wounds in spite of all precaution. The use of antiseptics has undoubtedly saved the lives of innumerable patients, but it has also provoked inflammation, eruption, intoxication and even death, and often produced an irritation in the wounds, which has retarded and prevented their healing. This has been our experience with carbolic acid, iodoform, corrosive sublimate and other agents, and also with salicylic and boric acid and creolin, though in less proportion, perhaps, than the former. Besides, these antiseptic remedies cause the operator and his assistants considerable inconvenience.

The original method of Lister has undergone such radical changes that really nothing more of it is left than the main thing, namely, scrupulous cleanliness; we see how surgeons have changed from one antiseptic remedy to another, to avoid the unpleasant results of those previously used, but usually without seeming success.

The above mentioned antiseptic remedies, as well as others, have been used less with every year, and it seems only a question of time, when their use in dressing flesh wounds will be entirely discarded, and their place taken by other means of disinfection. These means would then be, to prevent all kinds of bacteria and spores to enter the wounds, by causing all objects which would come into more or less contact with

the wounds perfectly aseptic, such as the operating room, the air of the same, instruments and dressings, the patient, the surgeon and his assistants. But to carry out this rigorous asepsis, it was necessary to have separate operating buildings, such as the very remarkable and almost ideal operating pavilion at the Kommune hospital in Copenhagen. As it has been in the past, only one operating room, and this filled with instrument cases and other furniture, upon which dust would always collect, cleanliness was out of question. To open a foul abscess one minute and attend to a fresh wound the next, was hardly asepsis. This proved conclusively that two operating rooms were necessary, one for operating upon inflamed tissues and another for fresh wounds and other aseptic operations. For the former cases the old operating rooms might suffice, but for the latter another place with modern equipments was absolutely necessary.

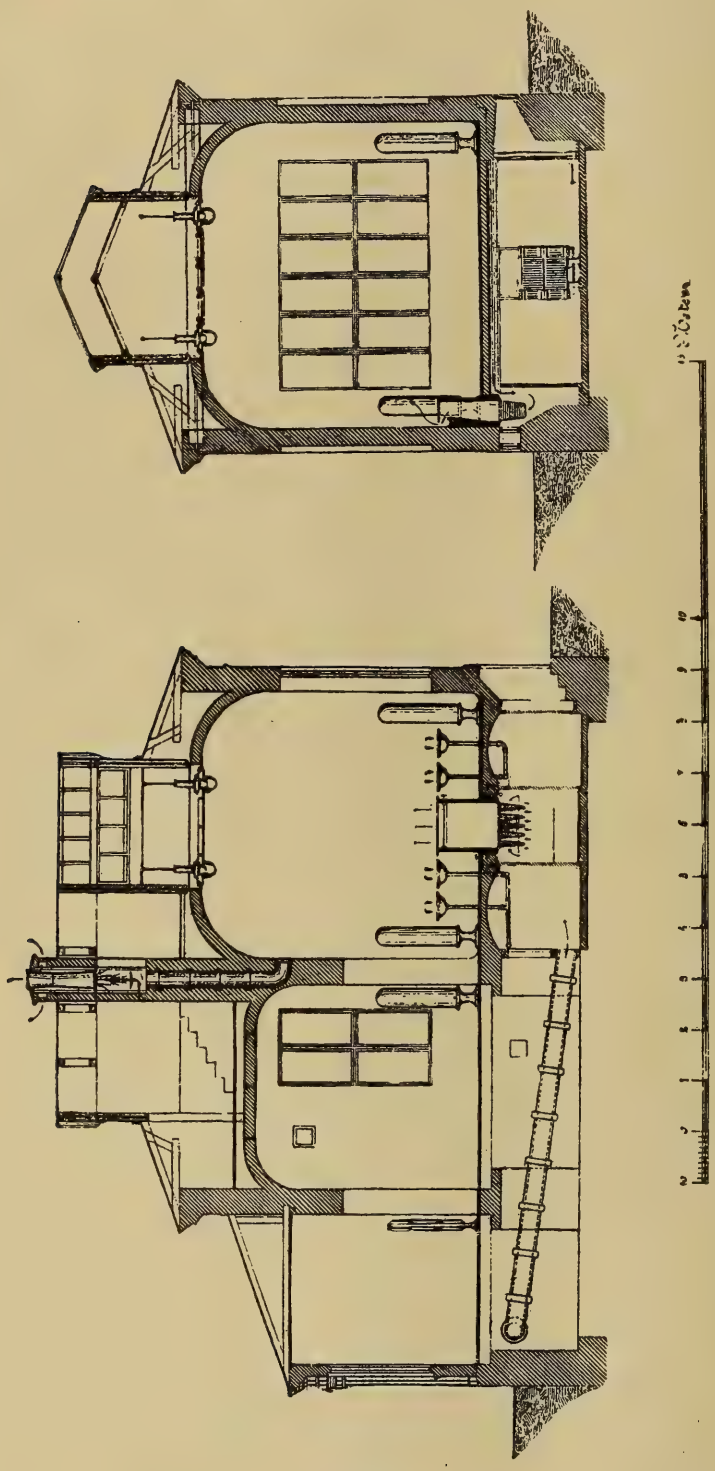
It was necessary to have it located right, and isolated from all sorts of contagion. It was further considered important to give infectious materials no space, nook or corner to settle upon, and yet arrange it so that it would be easy to keep the floor, walls, ceiling, air and furniture perfectly clean. As bacteria generally attach themselves to dust, which is set in motion in the air, and then come in contact with the wound, there should be no dust. It is common to differentiate between direct contagion of infectious material and infection through the air. And yet, does not the air come in direct contact with the wound, and how much larger space does it occupy, and has not bacteriological examination proven beyond doubt the presence of suppurative bacteria in the air! It is useless to rest contented with the belief that the air infection is *nil*, and that the dust will probably settle before the operation, as the volume of dust seen along the sun-rays will constantly prove. To antagonize this dust by keeping the wound as much covered as possible during the operation is a common practice, and if this does not fully satisfy the operator, he contents himself with the belief that "a little air will not have a bad influence on the healing," but forgets that in this air is dust and on the dust bacteria. No one disputes the importance of having the operating room as free from dust as possible, and the removal from it of all unnecessary furniture upon which it might collect.

As it has been shown to be almost impossible to remove dust even with the strongest currents of air, experience has taught us that the floor, walls and ceiling of operating rooms should be kept moist during the operation by sprinkling them immediately before with water.

Another important question was that it should be well lighted and ventilated.

The new operating pavilion was constructed upon these principles, and

resembles the one at the Kommune hospital of Copenhagen very much. It is a separate pavilion, facing north and connected with the hospital buildings proper only by an enclosed passage way. Upon entering the



THE NEW OPERATING PAVILION AT SABBATSBERGS HOSPITAL, STOCKHOLM, SWEDEN.

pavilion from the passage way, we first come to the two washing and disinfecting rooms, which are connected with the operating room proper by smooth iron doors in iron frames. This room has a floor space of about

31 square meters and is about 5.5 meters high. No sharp angles or corners are found anywhere as every joint and connection is rounded off. The ceiling is built in cupola shape; in the centre is a glass window of 7 square meters area, of plate glass, set in smooth iron frames; over this window we find a skylight 2.5 meters high, covered on the inside walls with some kind of bright reflecting metal sheeting and covered over above with double glass panes. The walls as well as the entire cupola have perfectly smooth and level surfaces, water tight and not subject to harm from water or disinfecting materials. The whole is finished with art stucco on a mortar base mixed with cement. The ingredients used in this stucco mass, which could only be united after many tedious experiments, are cement, marble and pulverized glass. The smooth polished surface has a grayish color and is laid out very handsomely with dark brown lines. On the wall facing north is a large double window of 13.5 square meters area with ten panes of glass; the inner window panes are of plate glass and are set in iron frames, and some of them open inward. On the opposite wall of the operating room is an instrument case in the form of a niche; it has tight fitting glass doors in iron frames and smooth walls like the rest of the room with movable glass shelves. This case is large enough for instruments, bottles and jars with antiseptic remedies. The floor of the operating room is of cement, cast between iron rails, and has a smooth polished surface of cement mosaic; it inclines evenly towards the middle where there is an opening for drainage. On one wall a number of nickel plated sockets are inserted, from which caps can be removed and nickel plated bars screwed in for plate glass shelves, if desired. Along the opposite wall four wash basins of porcelain are placed, with cold and hot water, the outlet pipes going through the floor into the common drainage pipes; the wash basins are some distance from the wall and are supported by bent nickel plated metal pipes; on this side is also found the opening of the fresh air box, covered by a plate glass door, to be hereafter mentioned. In the four corners of the room are the free standing heating apparatuses; of furniture there is only one operating table and two smaller tables for instruments of tin plated or polished iron pipe, with plate glass tops and some iron stools, also tin plated.

The heating and ventilating arrangements deserve special notice.

Steam is used for heating. The four heaters, before mentioned, are of cylindrical shape with half-spherical tops and are made of bright copper sheeting and nickel plated. The foundation is of polished cast iron, and is closely fastened on to the heater and the floor. Inside of this is the steam pipe and a condensing water pipe, both connected with the boiler in the cellar. The amount of steam in the four heaters is regulated by a common valve, that is operated by a bar, reaching up

through the floor. The heat can thus be turned on or off with a key in the operating room and this regulating bar is neither higher nor lower than the floor surface.

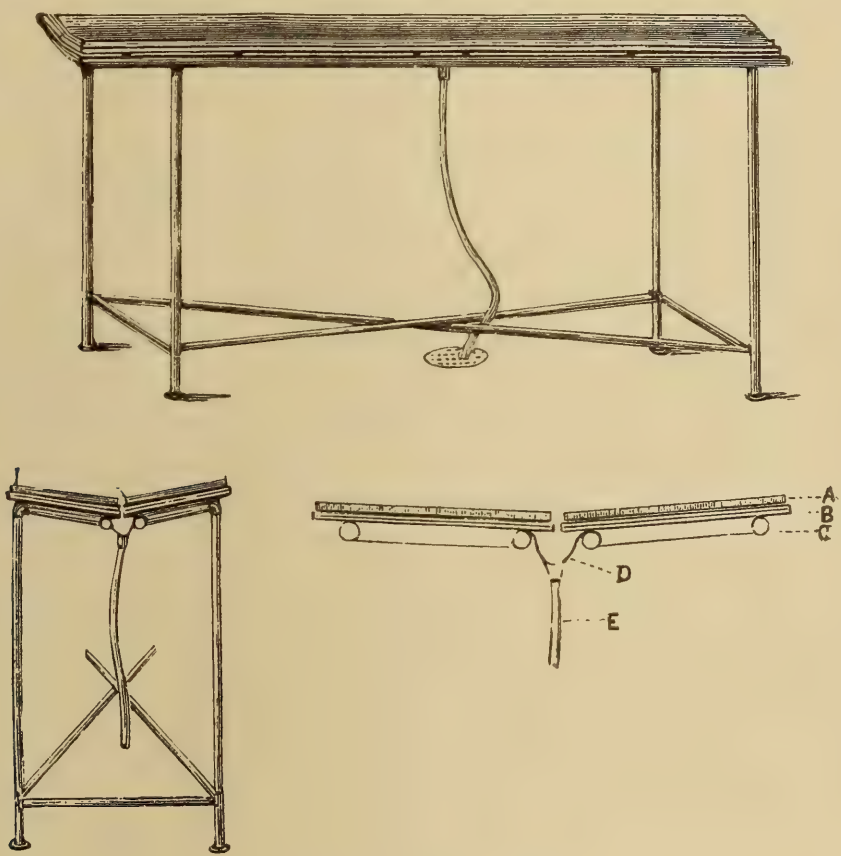
Ventilation is arranged as follows: Under the entire operating room is a room for the purpose of heating the ventilating air. This arrangement also helps to warm the operating room as it prevents cold draughts through the floor; this air for ventilation comes into the hot air room through a glazed earthen pipe of 3 dm. diam. from a common large ventilating apparatus elsewhere which first sifts the air and then forces it into the pipes with a revolving fan. This incoming air is already warm and is further heated in the hot air room by steam. The air can be heated at pleasure by another valve, bar and key arrangement from the operating room, as before mentioned. The air coming from the hot air room into the operating room passes through a short conduit close to the wall, a square box beginning at the ceiling of the hot air room and extending O,8 meters above the floor of the operating room. This conduit is O, 4 × O, 9 meters square and is finished with polished cement mosaic, and perfectly smooth. It is covered with a pane of plate glass. The side of this conduit facing the wall is rounded off and is not as high as the other sides. Through this opening under the plate glass cover the hot air for ventilation is poured out upon the wall and from there it extends over the whole room. It can be regulated with a plate glass valve in a nickel plated frame. This conduit can be cleaned whenever desired by removing the glass top.

The air is not allowed to come in unfiltered, however. Under this conduit (in the hot air room) is an air filter in the shape of a number of pockets, one below the other, of thick, stout cotton cloth. These pockets are held expanded by pieces of tin plate and through the glass top in the operating room the whole arrangement can be examined, whether it is in good working order or not. The filter can easily be removed, cleaned or replaced. The air is evaporated through a ventilator near the ceiling, being an earthen pipe of 3 dm. diameter.

To prevent any objectionable gases entering the room from the waste pipes leading from the washstands or other places, every outlet pipe is well trapped and led into a large cast-iron tank coated with asphalt and located in one corner of the cellar. This large tank or receiver is provided with water lock and is surrounded with a brick and mortar wall and has a separate ventilating chimney reaching up over the top of the building. The receiver is connected through a large cast-iron pipe with asphalt coating with another large cistern in the yard, arranged about the same way as the tank in the cellar, and this is again connected with the sewer in the street.

The tank in the cellar and the cistern in the yard are always partly

full of water. The operating room is lighted with four large electric lights of 200 candle power each, situated in the four corners of the large plate glass window overhead. The two washing and disinfecting rooms are arranged upon the same principle as the operating room, except that the walls and the ceilings are here painted with oil paint, varnished and smoothly polished. Each room has a heater and an electric lamp like those before mentioned, and are ventilated in the same manner. They are provided with porcelain bath-tubs and wash-stands with hot and cold water. All waste pipes lead into the tank in the cellar, which we have before mentioned. There is also a hydrant,



THE OPERATING TABLE.

to which a rubber hose can be attached for the purpose of sprinkling the rooms previous to an operation.

Sterilizing apparatuses for instruments and dressings of the very latest patterns, are also found here. One of these sterilizing apparatuses is inserted into the iron door between the operating room and the next room. The apparatus can be opened from both rooms, so that instruments and bandages can be taken out when needed after they have been subjected to a moist heat at 150° C for 20 minutes and then allowed to cool. Disinfectants are not considered necessary with bandaging material sterilized in this manner.

The operating table deserves particular notice. It is made as simple as

possible, in order to keep it thoroughly aseptic and allow blood and other fluids to run off without hindering the operator or his assistants.

The frame is made of wrought iron pipes, so well united, that no space can be found for dirt to settle; it is painted white, varnished and polished, and is 960 mm. high, and 550 mm. wide.

The top of the table consists of four plate glass blocks 10 mm. thick (B), fastened to the frame by nickle plated hooks. These glass blocks form two separate planes, inclining towards the middle, where they are 15 mm. distant from each other. Under this space is a gutter loosely hung (D), of nickle plated copper sheeting, with drainage pipe and rubber hose (E), leading from it into the iron tank in the cellar.

These glass blocks which form the top of the table are 1,950 mm. long and 640 mm. wide, and are covered with two rubber mats, 5 mm. thick (A). A rubber pillow completes the outfit.

The preparation before an operation is worth mentioning.

The surgeon and his assistants attend to cleanliness with the most scrupulous care; hands, face, mustache and hair are thoroughly cleaned antiseptically. Thereupon the outer clothing is removed and sterilized coats and trousers are put on. Sterilized shoes (of tough sail cloth with wooden soles, very thick) must take the place of their own foot wear. No one can be present at the operation who has not prepared himself in this manner, or put on the aseptic outfit. The necessity of the thick wooden bottoms on the shoes was made quite manifest to me by the fact, that water stood half an inch high on the floor during the operation, from the previous thorough sprinkling of the operating room.

I can only see one point where a suggestion might come in to add to this otherwise most admirably arranged operating system, namely: that the surgeon and his assistants should wear neither mustache nor beard, and the hair should never be allowed to grow over half an inch in length, by running an American clipper over it as often as it exceeded this length, which could be distinctly set forth under the proper head in the hospital regulations.

HE KEPT GRAND MEDICINE.

In a Scotch village, where a young doctor had lately started practice, a workman had the misfortune to get his finger bruised badly in one of the mills. A doctor was sent for, and on properly dressing the finger the man nearly fainted. He was asked if he would take a little spirits to revive him. "Mon," he exclaimed with feeling, "that wud just be the very life o' me!" The doctor gave him a good glass, which he greedily swallowed, and on recovering his breath his first words were, "Well, doctor, I kin unco' little aboot yer skill; but, mon, ye keep grand medicine."—*Detroit Free Press*.

"So she married a man who lived in a distant city? How did she happen to become acquainted with him?" "She saw his portrait in a medical advertisement in a newspaper and fell in love with it."—*Cape Cod Item*.

HYGIENE.

INSTRUCTIONS FOR COMPLETE DISINFECTION IN CHOLERA TIMES.

FORMULATED BY THE IMPERIAL CHOLERA COMMISSION IN GERMANY.

DR. E. LESSER,
Pawtucket, R. I.

I. DISINFECTANTS.

THE commission recommended as the best disinfectants the following preparations:

1. *Milk of lime.*

Milk of lime, which is obtained in the following manner: One litre of water is poured into a vessel, and one litre of quicklime added to the water. When the lime has absorbed the water and has settled as a powder the whole bulk is mixed with three more litres of water. The milk of lime thus prepared should be kept in well stoppered vessels and should be shaken before using.

2. *Chloride of lime.*

This preparation possesses disinfecting properties only when it is freshly prepared and preserved in well stoppered vessels. Its good quality may be known by the strong odor peculiar to itself. It is used either as powder or in solution. The latter may be obtained by mixing two parts of chloride of lime with 100 parts of cold water; after having allowed the liquid to stand the clear solution is decanted.

3. *Solution of potash-soap,*

(so called green soap, black soap or soft soap.) Three parts of the soap are dissolved in 100 parts of hot water; for example, 1-2 kgr. in 17 litres of water.

4. *Solution of carbolic acid.*

Crude carbolic acid is not very soluble in water and cannot therefore be used for the purpose of disinfection; but the crude carbolic acid is soluble in soap-water; one part of the carbolic acid is mixed with 20 parts of a soap solution prepared as described in § 3. This solution keeps for a long time and is more effective than a solution of potash-soap alone.

Pure carbolic acid is very much more expensive and is not more effective than the crude acid. When pure carbolic acid is employed it is not necessary to dissolve it in soap solution, as pure acid is soluble in water.

5. *Steam-generators.*

Appropriate for the purpose in question is that apparatus, which is arranged for streaming water-steam at 100° C, as well as that in which steam is employed at pressure (not less than $\frac{1}{10}$ atmosphere).

6. *Boiling water.*

The objects to be disinfected are boiled in water at least half an hour. During this time the water should be kept continually boiling and should completely cover the objects to be disinfected.

The choice of the most convenient among the above mentioned disinfectants to be made according to the real nature of things. Especially, in default of crude carbolic acid, the disinfectants in § 1 to § 3 may be used. If it should be impossible to procure these, in case of necessity, carbolic acid of lower body of active substances may be employed. Of course a larger quantity of the latter must be employed in this case or another disinfectant may be used, which is to be considered as equivalent to the above mentioned.

II. THE APPLICATION OF DISINFECTANTS.

1. The liquid excrements (stool and vomit) are carefully collected in vessels and mixed with nearly the same quantity of milk of lime (I, § 1). This mixture should be allowed to stand at least one hour before it is done away as innoxious. In the same manner chloride of lime (I, § 2) may be employed, of which powder 3 table-spoonfuls are added to half a litre of the excrement. This liquid should be well mixed and may be done away with immediately after 15 minutes. Dirty water may be disinfected in similar way but it requires less milk of lime and chloride of lime.

2. Hands and other parts of the body should be disinfected by washing them thoroughly with chloride of lime solution (I, § 2), or with carbolic acid solution (I, § 4), when they have come in contact with infected articles (excrements of the patient, dirty linen, etc.)

3. Bed-linen and linen worn on the body and similar articles, should be brought into a vessel filled with a disinfecting solution immediately after being soiled. The disinfecting solution may be soap solution (I, § 3) or carbolic acid (I, § 4). The said articles should remain in the former solution at least 24 hours; in the latter at least 12 hours before they are cleaned in the common manner. The said articles, linen, etc., may be, disinfected also in steam-generators or by boiling water. But also in these cases the articles should first of all be moistened thoroughly with

one of the said disinfectants (I, § 3 or I, § 4) and then put away in well closed vessels or bags in order to reduce the danger connected with handling of the articles. In every case all persons who had anything to do with such articles should disinfect their hands, etc., in the way stated in II, § 2.

4. Cloths not to be washed should be disinfected in steam-generators (I, § 5). Leather articles should be rubbed with sponges moistened with carbolic acid or chloride of lime solution (I, § 4 and § 2).

5. The wood or metal-work of furniture and similar articles should be rubbed carefully and repeatedly with flaps or sponges moistened with carbolic acid or soap solution (I, § 3 and I, § 4). In the same manner the floor of sick rooms is treated. Once used flaps or sponges should be destroyed by burning. The floor may also be disinfected by sprinkling it with milk of lime (I, § 1) which disinfectant should be applied for at least two hours.

6. The walls and all woodwork of sick rooms should be whitewashed with milk of lime (I. § 1). After the disinfection is done, the sick room should not be used (if possible) for 24 hours; in any case they should be well aired.

7. The soil contaminated by excrements, the pavements or water-gutters, into which suspicious articles have been thrown, are disinfected very simply by pouring into them plenty of milk of lime (I, § 1).

8. Into the cess-pools a sufficient quantity of milk of lime should be poured, carbolic acid, etc. Barrels, coops, etc., in which excrements are gathered, should be covered inside and outside with milk of lime, carbolic acid, etc., when they are emptied. The seats should be cleaned by washing them with soap-solution (I, § 3).

9. If it is not possible to carry out a thorough disinfection in the manner just described (for instance the disinfection of feather-beds, cushions, etc., if there is no steam generator at hand,) it is necessary not to handle the articles to be disinfected for at least six days and then remove them carefully to a place which should be warm, dry and secured against rain and, if possible, exposed to the sunlight.

10. Articles of less worth, especially bed-straw, should be destroyed by burning.

It is necessary to carry out the disinfection with the greatest minuteness, wherever the circumstances require it; especially if places accessible to the public are in question.

But on the other hand we must warn very strongly against the lavish use of disinfectants; for unnecessary and ineffective disinfection is not only an unprofitable expenditure and tends to enhance the prices of disinfectants, but it promotes public carelessness.

"Cleanliness is better than a bad disinfection."

ELECTRO-THERAPEUTICS.*

AN ELECTRICAL OUTFIT.

By WILLIAM F. HUTCHINSON, M. D.

VICE-PRESIDENT AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

THE addition to the armamentarium of the general practitioner of medicine of so powerful an agent as electricity, and the mystery which, as yet, conceals nearly all of its phenomena, seem to demand that some thoroughly practical series of directions for its systematic use shall be prepared and made public. There are numerous well-written and comprehensive works in existence upon the value and use of electricity in medicine, and each of these has its hardly earned place upon the specialist's table. Each one begins by demanding for its proper comprehension an amount of study of its preliminary chapters upon electro-physics and electro-physiology, and an acquaintance with the many machines that are set forth in excellent cuts upon its pages, such as no busy doctor can possibly give—such as he will not spend time upon. Certainly no claim is made here that an accurate knowledge of the laws and formulæ which are known to govern electrical phenomena, is not a valuable addition to a physician's budget of information; it is intended, in the chapters which will follow this, to demonstrate that they are not absolutely essential. And while the tendency of modern practice has been very strongly toward the development of specialties in medicine during the past ten or fifteen years, so that the general physician is occasionally puzzled to know just what is likely to remain for him to do after another decade of like progress, it should be remembered that there will come an end to this. While in large cities it is probable that branches demanding especial ingenuity and especial preparation, such as diseases of the eye and ear, electro-therapeutics, etc., will always demand men who will study for those departments alone, there is fast coming the time throughout the country when the general practitioner must and will reassert his superior claim to attend his patients for any and all diseases. The advance in medical education along the whole line makes this practicable in the near future in America, as it has always been in Europe, where the foremost specialists are men in large family practice.

It is to such men as these—men who need in their rooms an elec-

* This article forms the first chapter of the second edition of "Practical Electro-Therapeutics," now in press.

trical machine as they do an amputating case, to be used about as often—that this work is addressed. For men who neither know, wish to know or care about the meaning of anode or cathode, rheotome or rheostadt, a farad or a weber, and yet who *do* know that a faradic current is one of the best possible applications for muscular rheumatism, and one of the best diagnostic aids in certain nerve lesions, and who need plain directions how to use the agent in such cases, it has been written. It is said that such directions must be lacking in precision, because no accurate system of dosage has yet been devised of a power subtle enough to escape measurement, *i. e.*, that a faradic current cannot be weighed or measured like a dose of quinine. I cannot quite agree with this statement, for, with the instruments which can now be obtained at a very moderate cost, electrical currents may be applied to patients from day to day with as much accuracy as cupping-glasses, and as little risk. To do this, and do it well, it will only be necessary to observe the following directions for special cases, which will, it is believed, cover all the salient points wherein the general use of electricity is indicated. Beyond this, if prolonged or complicated treatment should be necessary, or if the action of the current should give rise to unexpected or alarming symptoms, it will probably be best to refer to the expert, whose life is spent amongst such cases, and who may be consulted in such need. Where the surgical use of electricity is required, it is improbable that the general practitioner can accomplish much. The instruments required are unwieldy, expensive, difficult of management and maintenance, and really play so minor a part in the grand domain of surgery, that there are very few operators who care to lay down the scalpel for the cautery knife or wire. And yet, as will be seen later, results have been obtained in many cases where the knife could not be used, where only galvano-surgery was admissible. Here the specialist must again come in, and all scientific surgeons will rejoice at his presence in the hour of need.

To do good work one must have good tools. This is especially true in electricity, where imperfect instruments, either of production, conduction or application, will defeat the most painstaking endeavors. To attain the best results in electro-therapeutics, in fact, to attain *any* satisfactory results, it is absolutely necessary that efficient machines, perfect (as nearly as may be), conducting wires and a number of electrodes of different shapes, should be provided and kept in a high state of efficiency. An electric machine in which any form of acid is used to excite a current flow, needs unremitting care. Shut up in a box for days at a time, acid fumes find their way through the best preventives, and connections are oxidized or corroded. Zincs lose their amalgam, carbons grow rough and soft, and any sudden movement of the plates

usually results in their fracture. Cords become oxidized at their ends, and only carry the current by jerks or refuse duty altogether. Electrodes are covered with cupric acetate where brass joins carbon, or over the entire face of metal plates, and will not transmit the flow. All these uncomfortable obstacles depend upon simple carelessness, either in purchasing instruments or in looking after them when bought. Let us take the machines first. There is one fact to be borne in mind from the outset, namely, that no instrument has yet been made satisfactorily combining in one box galvanic cells and an induction coil. The temptation to purchase such a one upon the score of convenience and economy is strong, but the test of experience has shown that they will not last; that however bright and effective they may be at first, deterioration begins promptly and they soon become useless. There will then be needed three separate instruments, viz., a 24-cell Grenet galvanic, portable, a 30-cell permanent galvanic, office, and a compact reliable induction coil, giving a power with half-drawn helix stronger than the purchaser can well bear. The first named will be needed for out-door daily use, and may be used at the bedside in cases such as acute trunk neuralgia, discussion of growths, etc. The current will be of high tension, and will prove enough, when freshly charged, to use for electrolysis of small nævi, bursæ, etc. The best one at present in the market, in my opinion, is the 24-cell chloride of silver battery, manufactured by the Gaiffe Company, of Paris. It is small, compact, carries well, and has no connections beneath the switch-board which are difficult to reach. But batteries almost as good, and answering our purpose equally as well, are made by many American manufacturers. When filling the cells if a little extra care be taken not to get any of the fluid, which is the common solution of potassic bichromate in dilute sulphuric acid, on the outside of the glass, much destruction of the case will be avoided. They should not be quite half full; if more is put in, the plates may cause an overflow when immersed. When through using the instrument, I am in the habit of rinsing off the plates by dipping the whole series into a basin of hot water. This saves both the zincs and the top of the cell-cover below, which will be quickly destroyed if the acid solution drips upon it.

For office work, which includes, to my mind, all cases of central lesion, the instrument just described is quite incompetent. The high-tension current which it produces is, with its great velocity and harsh effect upon the surface nerves, as well as its excessive stimulant action upon the nerves of special sense, dangerous in the extreme in non-expert hands, and rarely employed about the centres by specialists. Duchenne records a case* where a careless application of this kind to the head caused sensation of a bright flash of light and subsequent total blind-

*De l'Electrisation Localisee.

ness. For all central applications, therefore, whether to cerebrum, cerebellum, cerebro-spinal axis, spinal cord, or nerves of special sense, another battery is needed. Flemming, of Philadelphia, has lately made two or three for my patients which have proven especially useful. And as types of this class of instruments I regard them the best. The cell is a modification of Daniell's; that is, it is a copper, zinc and water element, with a packing of acid paper pulp separating the two metals.

The connections between the jars are of platinum, which does not oxidize, and the battery is exceedingly permanent. Being of large internal resistance, possessing little current tension or velocity, with considerable quantity of electro-motive force, the resultant current is very soft, easily handled, and can never do harm with any number of cells which a physician would need for medical purposes. Flemming makes these batteries of any size for about $2.50 a cell, and twenty-four of these, contained in a plain box, with a key-board connecting on any number of cells from one to twenty-four, a current changer for reversing the direction of the flow, and two screw-posts for the cord tips, make a battery that will do all the work needed in any office, and be at the same time permanent, neat and reliable. All that is needed when the current begins to grow weak is to add a few crystals of cupric sulphate and a little water, close the circuit by connecting the screw-posts with a bit of wire, and in a few hours it will again be in good order. The three points mentioned above—permanency, neatness, and reliability—are absolutely essential for good work in a battery of this class. In the portable one before described, permanency is impossible, neatness difficult, and reliability uncertain, from the very nature of its construction; but this is a matter of less consequence when one has his office instrument to fall back upon, and is sure of finding it in good order; besides, the portable battery is only intended for cases requiring less care and skill than the office instrument. For the latter it is necessary that the current shall be permanent, in order that the patient may have the same amount of electricity to-morrow as yesterday from the same number of cells—in default of which or of a milliampere metre, there can be no system of dosage. It must be neat, so as to be an attractive instrument as well as a useful one, and it must be reliable, so that the temper of the practitioner may not be expended upon an unruly machine instead of upon a nervous patient. And I know of few things more exasperating than to have a fidgety woman watch the doctor trying in vain to discover why the blessed battery will not go, when she has been promised quick relief from its magic healing power, and is waiting. About then, one is willing to pay largely for reliability or to pitch the whole thing out of the window—it matters little which.

Flemming makes one of the best faradic machines in the market. It

is both simple and effective, the two requisites in an induction apparatus. What is needed here is a well-insulated secondary or outer coil of considerable length, a short primary coil, a battery cell which will last some time without change of fluid or without spilling it in transit and which produces a high-tension current, short, unsoldered connections between cell, coil and vibrating hammer, and a conspicuous absence of the numerous devices for slow and rapid interruption, which look so pretty upon the key-board, and which so quickly get out of order, and become worse than useless. In the last instrument of this kind that I have had made for me, there are no connections made with the primary coil at all, it being my belief that there is no therapeutical difference in effect between the two—that the secondary is alone needed, and that the additional attachments required to use both are an added source of deterioration and ineffectiveness. It will be found by practice that the numerous small induction machines in the market, of which Gaiffe's is the type, are practically useless for medical purposes. The little mercuric bisulphate cells and short coil give a current of sufficient tension, it is true, when freshly charged, to contract muscles, but quite devoid of therapeutic value, from the absence of quantity—that mysterious quality of electricity which influences chemical, as well as trophic and vital change. They are valuable only as toys, serving to amuse the patient while the doctor works away at the disease with other weapons. And right here, I am satisfied, is the cause of the want of faith in electricity as an absolute curative which a large majority of general practitioners feel. Our best men, when asked their opinion as to its value, are apt to shrug their shoulders significantly and say nothing, or give an evasive answer. They have tried it and failed. But the failure was the fault of the operator, in his lack of knowledge of instruments—not of the agent employed. And it is a mystery, why a little machine of undoubted activity cannot produce vital effects which a more powerful one easily attains, when the physical phenomena evoked by both are so alike, but one which promptly disappears in the light of the above explanation. Let such playthings alone; they do but serve to undermine your confidence. And yet, in the report of the New York Academy of Medicine for April 21st, 1883, Dr. Beverly Robinson is reported as saying "as much benefit was received (in a case of opium poisoning) from artificial respiration as from the intelligent use of faradic current. The ***battery**** used was the small portable one of Gaiffe." Had really intelligent use of the faradic current been made, with a competent machine, it is probable that no need whatever of artificial respiration would have been experienced.

Leakage of Machine.—Flemming's faradic machine has the additional

*Italics are mine.—W. F. H.

advantage of non-leakage. By a simple lever movement, the opening through the rubber top of the cell is shut water-tight, and the box may be turned upside down without spilling a drop of the fluid; something which one learns to appreciate after spoiling a pair of trousers and a carriage rug or two, to say nothing of the box.

Next as to cords. Always provide those made of fine copper wire twisted into a small rope properly covered. More than half of those that come with medical batteries are made of tinsel, which have but one thing to recommend them—their flexibility—against so many disadvantages of imperfect conduction, rapid oxidation and slight strength, that they should never be purchased. When the order is given, specify conducting cords of fine copper wire. The form of tip is also of importance. Any form will wear out and break from the cord, and it is evident that the one wearing longest is the best. And this is the one that can be replaced in a few moments by the doctor, without the necessity of a mechanic, being the form used by most manufacturers, viz., a stout wire point, with a double loop at one end to twist the conducting wire into. When, through constant friction and much use, the strands of copper wire have become frayed out, or so far disorganized by the galvanic action as to snap off, or corroded through with verdigris, it is only necessary to clip off an inch or two of the cord, strip the covering from another inch or two, brighten the tip with acid, and attach as before. One cause of much discomfort in central galvanic sittings, *i. e.,* flashes of light, phosphenes, is frequently due to the loose way in which cords are fastened to tips, and may be quite avoided by being careful that the twists of cord are well tightened around the metal tip when attached.

Lastly in the outfit come the electrodes. For general galvanic treatment there will be needed two flat covered pads, to be placed anywhere under the recumbent figure, two oval carbon plates, 3x2 inches, two carbon buttons, 1½ and three inches in diameter, one long metal plate, made double, for the sympathetic ganglia, and one or more penis tubes. All these except the latter should be covered with wash leather, and it will be better if a thin lamina of sponge be placed between the leather and the carbon, so as to retain the moisture longer. For faradic use, in addition to the flat sponges before mentioned, which will be found quite indispensable, there should be provided half a dozen sponge-holders, armed with sponges about three inches in diameter, a fine wire brush and an eye-cup; and for use with both currents, two or three handles, best of hard rubber, which should fit the screw-thread of all electrode screws so as to be entirely interchangeable. With these, and a few needles, if the destruction of nævi is to be considered, the doctor will be ready for any emergency in which electricity can be used in medicine. There will, of course, come times when a special applianee will be

needed; but stout brass wire, a pair of cutting pliers and a little ingenuity will readily supply such need. Let us recapitulate the outfit and see how much this all is going to cost in round numbers:

One galvanic battery, portable	$40 00
One galvanic battery, office	75 00
One Faradic machine	30 00
Eight galvanic electrodes with handles	15 00
Six sponges and holders	12 00
One wire brush	1 50
One eye-cup	1 50
Or a total of, say	$175 00

From this there will be some trade discount, probably enough to make the amount $150, net.

I do not think that much better than this can be done.

PHARMACY.

BOARD OF PHARMACY.

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Meets first Monday in each month except July, August and September.

A NEW REMEDY FOR LUPUS.

Hebra employed in cases of Lupus allyl sulphocyanate-amine (Thiosinamine) NH_2–CS–NH–C_3H_5 with great success. This preparation, which has been known in chemistry for some time past, may be obtained very easily in the following manner:

Two parts of allyl sulphocyanate, 1 part of absolute alcohol and 7 parts of ammonia solution (sp. gr. 0, 960) are heated together for some time on the water-bath at 40° C, until the liquid is concentrated nearly to one half; then the solution is allowed to stand. After a short time "thiosinamine" appears crystallized as colorless brilliant prisms. The latter have a bitter taste and become liquid at 70° C.—*Zeitschrift für österr. Opotheker, 1892, 30.*

The greatest misfortune in having a cold is the fact that everybody wants to doctor you.—*New Orleans Picayune.*

Teacher (in mineralogy class)—"Johnnie, give me the name of the largest known diamond." Johnnie—"The Ace."—*Jewelers' Weekly.*

The R. I. Medical Science Monthly.

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Books and monographs, native and foreign, on any of the Medical Sciences, will be reviewed without fail, according to their merits and the space at disposal.

Alterations in the proof involving an excessive amount of work, will be charged to authors at the rate of 60 cents an hour.

Contributors desiring Reprints or Extra Copies of the Journal can obtain them at reasonable rates by application to the Business Department immediately upon the acceptance of the article.

INTRODUCTION.

With the first number of a journal it is always customary to make a declaration of principles or map out the course which it will pursue. As the overture is necessary to the opera and the preface to a book, so is the introducing article to any new publication a time-honored custom which must be followed. So we will endeavor to write a preface to this journal, saying in a few words what we intend and hope to do. We have tried to indicate on the title page what the mission of this journal will be.

The owl, the emblem of learning, rests on a foundation of the sciences.

Chemistry and Physics as the very foundation stone of Medicine and Surgery have been placed first, and then we note the other sciences in succession as we climb up to the top where Medicine and Surgery rest on a proper foundation.

To progressive work in Medicine and Surgery as brought about with the aid of the fundamental sciences, the efforts of our labors are to be especially devoted. How far we shall be able to accomplish this great task we beg to prove in the future. We do not claim to "fill a long felt want" as able journals are published to-day everywhere which represent the different specialties. Our efforts will be to humbly endeavor to concentrate the different sciences, with the view that Medicine and Surgery based upon such foundations shall steadily climb upward towards that perfection which is uppermost in every honest physician's and surgeon's desires. So we start out with the hope to be able to give to the medical profession in a concise, concentrated manner the progress of the world of science, and although our first issues may not be a fair representation of this journal as it is to be, we bespeak for it, nevertheless, the kind attention of scientific men.

OUR CORNER.

It is with much pleasure that we wish every scientist into whose hands this journal shall come, a happy and prosperous New Year.

The Editors respectfully invite Physicians, Surgeons and Scientists in general, but particularly those connected with hospitals, asylums or other public institutions, to report their interesting cases in the Monthly. Whenever you have anything occurring in your practice, differing in some respects from the ordinary run, write it up and send it to us, and we will treat it with the highest possible consideration. If you would like to report some cases or inform us of anything of interest to practitioners in Medical Sciences, please send us word, and one of our Editors will call on you, if not too far away, and write it up.

As soon as possible we intend to publish reports from every society or institution which may be of interest to our readers, and we hope you will all assist us in every way possible. Do not expect the impossible, that anyone can be born perfect. You may find some things about our Monthly you do not like, but just have a little patience, and send in $1.50 for a year's subscription, and watch us improve with age.

Many reports of institutions and societies have been received which must of ne cessity lie over till some future month, chiefly for the lack of space.

Please remember that this is the first medical journal ever published in the great state of Rhode Island. Owing to this fact, we hope that every devotee of the medical sciences in this State will subscribe for it. Its Circulation will not be con-

fined to the State of Rhode Island, however, as we expect to place a copy of this journal with every scientist in the New England States, and in due course of time, we hope to spread it all over the United States, Europe and the whole world.

Our expectations may not seem very modest, but we feel that there is always room for one more, and that we have as much right to cater to the taste of scientists as anybody else, and by our fruits ye shall know us.

Those who have wares and preparations to sell to members of any of the Medical Sciences, will find it quite profitable to advertise with us. Our circulation will be large and our rates low. Respectable advertisers will be treated with the utmost consideration. Everything will be done to make advertisements striking, tasty and neat, and as to positions, first come, first served.

It has seemed unfortunate that this State, small perhaps in size, but great in wealth, freedom of thought and able men devoted to science, has had no journal to represent it among the medical publications of the land. There is a super-abundance of boldness and freedom of thought and speech in this State, which will, if drawn out, astonish other and greater sister States. The writings of our scientists are usually well received, read and commented upon. We have able and learned Doctors, Pharmacists, Dentists and other followers of the Sciences. We have excellent hospitals and asylums, that compare favorably with the best in the land; we have a University and other institutions of learning in our midst of which we are justly proud; and best of all, perhaps, we have an intelligent, cultured and well-to-do people. We feel sure that the R. I. Medical Science Monthly will prosper under these circumstances, but we need the support and assistance of all of you, to make the Monthly thoroughly representative. And the support we ask for is $1.50 for a year's subscription, and frequent communications to the Monthly, and you will find that we will do our part if you will do yours.

POINTED PARAGRAPHS.

THE CRY OF CHILDREN.

THE cry of children in pneumonia and capillary bronchitis is moderate and peevish and muffled as if a door were shut between child and hearer. The cry of croup is hoarse, brassy and metallic with a crowing inspiration. That of cerebral disease particularly hydrocephalus, is short, sharp, shrill and solitary. Marasmus and tubercular peritonitis are manifested by moaning and wailing. Obstinate and passionate and long continued crying tells of earache, thirst, hunger, original meanness, or the picking up of a pin. The pleuritic is louder and shriller than the pneumonic, and is evoked by moving the child or on coughing. The cry of intestinal ailment is often accompanied by wriggling and writhing before defecation. Exhaustion is manifested with a whine. Crying only, or just after coughing indicates pain caused by the act. The return or inspiratory part of the cry grows weaker toward the fatal end of all diseases, and the absence of crying during disease is often of graver import than its presence, showing complete exhaustion and loss of power. Loud screaming some times tells of renal gravel.—*E. C. Hill, M. D., in Denver Med. Times.*

WHY WE SHOULD HAVE A MEDICAL OFFICER IN THE PRESIDENT'S CABINET.

During the recent assault made upon the Atlantic fortifications of the great United States, the country was in danger of utter destruction, and every individual in peril of his life on account of the clash of authority which occurred between the federal and city authorities. Fortunately the federal officers gained the day, and great credit is due to them as well as to the Health Officer of New York City in keeping out the merciless foe of mankind. Although cholera entered New York, it can scarcely be said to have gained a foothold, and yet we shall await anxiously the developments of the coming spring, as it is now conclusively shown that cholera germs may lie dormant for months, and reappear under favorable climatic and filth influences.

But why have a repetition of so unseemly a disagreement? Why endanger the lives of sixty-five millions of people by a clash of any sort? Why not establish a medical cabinet officer as other civilized nations have, who shall have supreme authority in all such matters? We can see no more valid objection to a Minister of Public Health than we do to a Secretary of State or a Secretary of the Navy, for are not our commercial interests, the lives of millions, as well as our very existence threatened on such critical occasions as we recently witnessed in New York harbor? Why, therefore, should we not urge our claims of protection from a foe more deadly than the invading Britons. By all means, let us have a medical officer of public health in the cabinet. Let him be well provided with a small army of medical men to guard us against further invasions. The health of our nation should be of supreme importance. It is estimated that the monetary loss to New York City alone by the present visitation of cholera was over 2,000,000 dollars. This fact alone should be sufficient to call the attention of our law-makers in Washington to the importance of the subject. Let us hope the matter will receive the attention of our next Congress. Surely no measure of greater importance can be introduced.—*Pacific Medical Journal.*

NEW YORK PHYSICIANS HAVE THE RIGHT OF WAY.

In accordance with the following city ordinance, New York physicians have the right of way:

"Section 1.—Section 1 of Article I of Chapter VIII of the Revised Ordinances of 1880 is hereby amended by adding thereto at the end thereof the following words, to wit: Physicians having a police permit, as hereinafter provided for, shall also have a like right of way in the streets, and shall be allowed to cross processions as soon as possible, when answering calls for their services. The Superintendent of Police is hereby empowered to issue, upon application therefor, a proper permit to any duly registered physician, and this permit shall not be transferable".—*N. Y. Med. Record.*

The physicians of Berlin, Germany and other European capitals enjoy the same privileges. There the physicians wear certain hats that distinguish them from other people, or their coachmen wear high, light hats. Every city ought to follow the example set by the otherwise rather poorly governed city of New York.

ATTEND YOUR MEDICAL SOCIETY MEETINGS.

We take it for granted that every physician of standing is a member of at least one Medical Society, and this is as it should be; but do you always attend the meet-

ings of that Society when it is possible? If you do not, you are not only doing yourself an injustice, but the interest and influence of the Society is injured to some extent at least by your absence.

While we would not say that a physician cannot keep abreast of the times in medicine to-day who does not attend the Societies, we do say that the best and foremost physicians are those who follow up closest in attendance their meetings.

Medical men who are in full practice have but few chances to mingle in social gatherings; we are continually brought face to face with the dark side of human life, with the sufferings, not only physical but mental as well, of our patients and their families. We owe it to ourselves to grasp every opportunity that presents itself to us, which will have a tendency to animate, encourage and cheer us in our life work.

Who of us has ever attended a spirited and instructive Society meeting, that has been followed by a social hour, but that he has felt himself exhilarated, and the better able to combat with the work, trials and fatigue of practice for the next week or months?

But aside from the social part of the meetings and of more importance, is the information derived by attendance; it is not enough for us to read the transactions as published from time to time by the Society, however good and instructive they may be; the discussion that follows the reading of a paper brings out many times over more practical information to the physician than the paper itself.

Frequently physicians say they would like to attend more often, but cannot on account of the time. We know it is not always possible to arrange our business so as to be present, but it is a fact that the physicians that have the largest, or at least the most lucrative practice are those that are most often found present.

Our patients are, as a general thing, very exacting in their demands upon our time; still they are quite considerate and it is seldom that any fault is found with us, if we explain to them that our absence was caused by attendance at the Medical Society meeting.

AMOUNT OF LABORATORY WORK WHICH SHOULD BE REQUIRED IN OUR MEDICAL SCHOOLS.

In an interesting article by Victor C. Vaughan, M. D., under the above heading, published in The Journal of the American Medical Association, December 3rd, 1892, the following conclusions are arrived at:

1. Analytical chemistry, 12 weeks.
2. Practical and surgical anatomy, 24 weeks.
3. Bacteriology, 10 to 12 weeks.
4. Physiological chemistry, 10 to 12 weeks.
5. Histology, 6 weeks.
6. Physiology, 6 weeks.
7. Pathology, 6 weeks.

This makes a minimum of 74 weeks. The greater part of this work should precede clinical instruction. Besides the above mentioned courses, therapeutics, including electro-therapeutics, is now being taught in some schools largely by laboratory methods, and this tendency will grow.

Laboratory methods will soon largely modify clinical teaching. Amphitheater clinics are giving way to bed-side and section instruction. Laparotomies and other capital operations are now made by the students in some of our schools on dogs.

The surgeon as well as the chemist has his laboratory. The student delivers the alcohol baby from the rubber mother before he is permitted to enter the lying-in room. It is no longer necessary to spoil a hatful of human eyes before one becomes a skilful ophthalmologist.

THE PAN-AMERICAN MEDICAL CONGRESS.

The Secretary-General, Dr. Charles A. L. Reed, of the Pan-American Medical Congress to be held in Washington, next Sept. 5–8, 1893, has sent us a copy of the preliminary announcement, a detailed report of which is given elsewhere. Accompanying the report is a very polite letter from the able and always genial Secretary-General wherein he says:

"I wish that in your editorial you would give particular attention to the importance of this Congress in developing a uniform quarantine between the different countries toward the general hygienic interests at stake and toward the realization of a Pan-American pharmacopœa, a most important matter and one that will engage serious attention at Washington. The formulation of a Pan-American pharmacopœa would open up a vast market for American pharmaceutical products, a market that is now closed for the reason that they are not at all familiar with our preparations or our posology.

Dr. W. F. Hutchinson, Secretary-General, who resides in your city, can give you full information as to the development of the Congress in the West Indies. He has personally superintended that work, and has done it with signal ability. It may be of interest to you to know that New England, particularly Boston, is rallying to the support of the Congress, with great enthusiasm.

Very sincerely yours,

Charles A. L. Reed."

The great advantages to be derived for all concerned, from a closer and more intimate relation between members of the medical societies of the western hemisphere, cannot be too fully pointed out, and it gives us much pleasure to call the attention of our readers to the preliminary report and the important questions mentioned by the Secretary-General. As the work progresses we shall keep our readers fully informed.

MORTALITY REPORT FOR DECEMBER.

Health Department,
City Registrar's Office,
City Hall, Providence, Jan. 7, 1893.

The number of deaths reported for this city for December, 1892, was 217. This was three less than the number for the preceding month and 116 less than in December, 1891. The annual rate represented by 217 deaths is 18.87 per thousand inhabitants. The total number of deaths for the year 1892 was 2964; the annual rate for the year was 21.48 per thousand inhabitants. This rate is for an estimated population of 138,000.

The principal causes of death were: Phthisis 19; heart disease 21; pneumonia 21; bronchitis 13; scarlet fever 7; diphtheria 5; typhoid fever and croup 4 each; measles 3; whooping cough 1.

During the month there were reported to the Superintendent of Health 20 cases of diphtheria, 42 of scarlet fever, 16 of typhoid fever and 16 of measles.

Charles V. A. Chapin, M. D., *City Registrar.*

TRANSACTIONS OF SOCIETIES.

REPORT OF THE QUARTERLY MEETING OF THE RHODE ISLAND MEDICAL SOCIETY.

DECEMBER, 1, 1892.

W. H. Palmer, the President, in the chair.

W. R. White, Secretary.

The censors meeting was attended by **Dr.'s Ely, Greene, Miller,** and **White.**

F. M. Eaton was nominated for anniversary chairman, and unanimously elected.

PAPER BY JOHN F. McCUSKER ON ULCERS OF THE STOMACH AND DUODENUM.

After dwelling upon the ætiology and pathology of these ulcers, the speaker mentioned that ulcers were usually found before the age of 40, arterial schlerosis and cancers after 40. Most authorities agree, that hyperacidity is present.

Absence of H. Cl. acid points to cancer of stomach. Majority of cases improve. Chemical examination of stomach has improved treatment. *Treatment:* Bismuth, cocaine and morphine; peptonized and liquid food; bi-carbonate of soda and magnesia; slightly cooked yolk of egg three times a day, carlsbad salts, 3½, to a tumbler of water and take a teaspoonful every half-hour; ice by mouth.

DISCUSSION BY E. P. CLARK.

Dr. Da Costa's treatise of this subject referred to. The speaker had experienced more cancers than ulcers. It was well to differentiate the disease in question from hepatic colic, cardialgia, hœmatemesis, gastritis and cancer. Food or most anything else introduced into the stomach usually relieves cardialgia; not so with ulcer.

Faradism relieves cardialgia, never ulcer. Hepatic history, with the heavily coated tongue, will tell chronic gastritis; and this affection is easily diagnosed. The difference in the pain will usually aid in diagnosing ulcer from biliary colic. In colic it is very severe with cold sweat, etc.; not so in ulcer. Ulcers usually occur between the ages of fourteen and thirty years. Most common in shoemakers, sewing girls and others who lead a sedentary life. The pain in ulcer is intermittent, vomiting is severe and comes on early. In cancer we mostly find a tumor and the age of the patient will usually settle the diagnosis. Give guarded diagnosis in ulcer, as perforation may suddenly carry off patient.

Treatment. Lavage—carbonic acid water—lime water—vichy.—Keep patient perfectly quiet until acute symptoms have disappeared. Dieting is the most important part of treatment. Patients should have no solid food, but plenty of milk if tolerated, often and in small quantities, and boiled; beef tea; soft boiled eggs; scraped beef and pancreatine per rectum. Among drugs the speaker mentioned acetate of lead nitrate of silver, morphine, creosote, tincture of iodine, etc. If hœmatemesis actually occurs, give ice to suck and feed per rectum for a couple of days. After this begin with milk and lime water and increase gradually. Afterwards change the diet to soft bread and milk, and further to pounded chicken, custard, eggs and the ordinary diet. A sulphate of iron and magnesia mixture three times a day in purgative doses is not bad. (*Saundby*). Sulphate of soda or carlsbad salts remove all remains of food from stomach, and help the anemia and constipation. (*Ziemssen and Leube.*)

Wm. H. Palmer, the President, mentioned a case of rupture of the duodenum seen by him in his capacity of Medical Examiner to the City of Providence.

Frank L. Day read a paper on Diseases of the Pancreas.

The author of the paper wished to have a case of fatal pancreatic hœmorrhage put on record and thought it might be profitable to review this rather uncommon disease. The author had attended the case jointly with **H. G. Miller** and **Robert F. Noyes** as consultant, both of Providence. **Prof. Frederick C. Shattuck** and later **Charles F. Folsom**, both of Boston, had also seen the case in consultation.

The patient was a physician, forty-nine years old, with nervous temperament. Father died at fifty—from heart disease, it was thought. Patient had had indigestion for years, aggravated by the irregularities of a busy physician's life. Had dieted for years. Had an attack of syncope some three years ago while traveling abroad, from which he recovered after weeks of weakness and debility. Had been in poor health for a year previous to last illness. Worked hard and could only sleep by the aid of stimulants. Had had much pain and distress in epigastrium for months, which was relieved by chloroform externally and internally. Was somewhat addicted to the use of cocaine applied to the nose.

In the spring of 1892 he was very weak and stimulants did not stimulate. On April 6th he resolved to stop work and rest. Uncontrollable vomiting would set in at times, consisting of food, some mucus and greenish liquid—never hœmatemesis. The painful spot in epigastrium grew more tender and he could not bear pressure over it.

The pain was also felt in the right hypochondrium. For months he had had much tenderness over the right lower ribs, corresponding to

the hepatic region, which he had considered due to peri-hepatitis. Was rapidly growing weaker and delirious at times, with attacks of syncope. Pulse usually sub-normal but quicker at times and very weak. Temperature never exceeded 99° F. Bowels very constipated. Stools mostly clay-colored; sometimes darker; at one time there was jaundice. Conjunctivæ and skin had a muddy color most of the time. Could bear neither sour or sweet food. Alkalies, codeia and other things would relieve the stomach. After vomiting had been controlled by opium in suppositories he retained food better.

Dr. Shattuck saw him in consultation at this time and concurred in the diagnosis of gastro-duodenitis. After this he gained some, and on the 19th of May the speaker removed some painful glands from the maxilla under choloroform narcosis. He recovered promptly from this operation. Remained better for two weeks, with occasional vomiting spells and was never entirely free from localized pain; bowels always constipated. First week in June pain got worse and he relieved it with chloroform. At 6 A. M., June 11th, he had a sudden attack of severe vomiting with agonizing pain over epigastrium.

After this he had collapse, was semi-conscious and perspiring; had a dusky color, cold extremities, very low temperature and high pulse (120). Much pain over usual place, but no evidence of tumor. Collapse increased and death followed at 10:30 p. m., sixteen and one-half hours after first attack.

Post partem examination (eighteen hours after death). Nothing abnormal about heart, lungs, pleura, spleen, liver or kindeys. Stomach was enlarged, with thin walls and adherent mucus; in gall-bladder one small concretion of inspissated bile was found; two others were firmly lodged in duodenal extremity of the common duct, the lumen of which they almost completely filled. The pancreas was enlarged in every direction, one inch longer than usual and double the ordinary diameter. The organ was very hard and dense and filled with a light chocolate colored liquid; the body and tail of the organ approaching a chocolate color. Dark areas were found everywhere on the organ; on section they proved to be conical shaped, suggesting altered blood, from their look and color.

Small pea like nodules were also found, of light gray color, very hard to the knife and feel. Microscopical examination eight hours afterwards by *Professor Fitz* of Boston showed evidence of "hœmorrhagic infiltration, with areas of fat necrosis," which was also coincided in by *Prof. Whitney* of Harvard University. The author regretted that the specimen did not reach *Prof. Fitz* sooner, for if traces of blood pigment had been found, all doubt would have been positively settled. He said further that there is very little written on this disease.

After going over the anatomy and physiology of the organ he thought it was not improbable that pancreatitis is more common than has been suspected, as for instance in many obstinate cases of impaired digestion, gastric and duodenal. The author afterwards recalled the symptoms of the disease and its diagnosis in a very interesting manner. He felt certain that the case in question was a case of pancreatic hœmorrhage and thought it dated back to the attack three years ago.

DISCUSSION BY PROF. R. H. FITZ, OF HARVARD MEDICAL SCHOOL.

The speaker thought the case confirmed the relation between pancreatitis and gall-stones, which seems analogous to that between gall-stones and cholangitis, inspissated fœces and appendicitis. Most recent investigations show that suppurative cholangitis cannot occur from gall-stones alone, but from gall-stones and bacteria, especially the colon-bacillus. *Drs. Ernst and Jackson* had recently isolated four cases of bacteria in hœmorrhagic pancreatitis, and *Prof. Welch* had found pure cultures of the colon-bacillus in foci of fat necrosis. Many cases had been published recently, but very little light had been thrown on the subject. A case of traumatic origin was cited from the service of the *Massachusetts General Hospital*, and the familiar fat necrosis of the pancreas had pointed strongly to probable affection of the pancreas. A case reported in "*Osler's Practice of Medicine*" was also referred to, where a patient was operated on at the *Johns Hopkins Hospital* for supposed acute intestinal obstruction, but instead, a dense indurated mass was found about the pancreas, with foci of fat necrosis in the mesentery and omentum.

This case proved to be quite remarkable because it was the first one that ever recovered from laparotomy, done for probable acute pancreatitis. The frequent occurrence of multiple fat necrosis associated with hœmorrhagic and gangrenous pancreatitis, had satisfied the author that the former was the cause of the latter in opposition to the view of *Balser*, who maintains that fat necrosis is the cause of pancreatitis. The foci of necrosis found in the case cited by the speaker from *Massachusetts General Hospital* were directly suggestive of escape of fluids from the pancreas and their causing a chemical change. *Langerhan's* explanation was referred to, that the necrotic process begins with decomposition of the neutral fat in the cells into fatty acids, which afterwards combine with lime, and go to make up the necrotic nodules. Such was the physiological function of the pancreatic juice in the intestine, namely: to bring about a decomposition of neutral fat, and why could not the same process take place elsewhere, outside of the intestine, and bring about necrosis in this manner? *Ernst, Jackson* and *Welch's* observations about bacteria and their presence in areas of fat necrosis

might, perhaps, suggest another cause for the production of the crystals.

The speaker thought it was an established fact that intestinal bacteria and pancreatic juice did decompose neutral fats into acidular crystals, like those seen in fat necrosis.

Balser had found that fat necrosis occurred also in swine, and were surrounded by inflamed tissue sometimes. An organism resembling actinomyces—had been found by him in the nodules, and from this fact he (*Balser*) argued that fat necrosis was an independent, possibly infectious *disease.*

Robert F. Noyes followed, saying he had never seen any case of the disease. The speaker cited *William Lawrence's* observations in 1831, that: "Morbid changes of all kinds are rare in the pancreas, lachrymal and salivary glands. It seems doubtful whether modern pathological anatomists who have had the most extensive opportunities have ever seen inflammation of this gland." Text books did not contain much about the disease; occasionally a case was reported in medical journals. The speaker mentioned *Prof. R. H. Fitz* as one of the foremost investigators in this line of thought, and his (*Prof. Fitz*) forcible presentation of this subject in the *Middleton-Goldsmith Lectures* (*1889*), had been the chief cause of the admission by the profession of such things as acute, chronic and suppurative inflammation; abscess, fat-necrosis and apoplexies in the pancreas were a reality. These lectures had brought out such editorials as that of the *Medical Record* for March, 1890, and had set forth these pathological changes in the pancreas and neighboring organs as had never been set forth before, and *Prof. Fitz's* labors had clearly indicated that the pancreas is the site of disease very often. Clinical experience had demonstrated that the disease is more often found in men than in women, and most common after middle age. Heredity, syphilis, pregnancy, high living, excessive drinking and disturbed menstrual functions were important etiological factors.

Sialorrhœa is often met with in pancreatic disease, but is not diagnostic. A pyrosis, or excessive salivation is not necessarily connected with pancreatic disease, but occurs also in gastric disease.

Free fat in the fecal dejection is, however, a valuable sign of pancreatic disease, and is found whether constipation or diarrhoea is present or not. This free fat often exceeds that ingested and is also found when all fats have been excluded from the diet. In estimating the value of this sign one must not lose sight of the fact that an excessive amount of fats cannot be absorbed rapidly enough by the small intestines, but may be ejected with the fœces. A deranged pancreatic secretion is further suggested by the inability to digest oleaginous, saccharine and amylaceous varieties of food.

Free fat in the urine should not be confounded with chylous urine.

If the fat is found in an emulsion in the urine it indicates pancreatic activity; if found in a free state it points to impaired physiological function of the pancreatic juice. Glycosuria sometimes precedes or follows pancreatic derangement. Diabitis has been produced by injury to the pancreas in animals (*Lancereaux*); diabitis is rather dependent upon disturbances of the solar plexus, however, and the presence of glycosuria in pancreatic disease must be referred to pressure on the solar plexus. Pain in pancreatic disease may be due to peritoneal inflammation, and is then constant, and usually situated between the ensiform cartilage and the umbilicus. It may also be paroxysmal and very severe, like hepatic colic, and probably due to pressure on the solar plexus. In pancreatic apoplexy the pain is spoken of as agonizing, severe and followed by collapse. Calculi are commonly found in the pancreatic ducts, and the sudden paroxysmal pain often found in the epigastric region and associated with hepatic colic or gastralgia, without jaundice, may be due to the passage of pancreatic calculi.

It is, however, difficult to distinguish œdema of the lower extremities, jaundice, ascites, stenosis of pylorus, intestinal hœmorrhage caused by pressure on the common bile-duct, the vena porta, vena cava inferior or pylorus, from pressure of the pancreas or from the pressure of some other organ.

L. F. C. Garvin—What was the cause of the immediate collapse; hœmorrhage?

Prof. Fitz—Hœmorrhage producing paralysis by irritating plexus.

Wm. A. Gorton—Diabitis?

Prof. Fitz—Extirpation of pancreas in dog has produced diabitis.

Geo. F. Keene—Any chills?

Prof. Fitz—Not very common; recurrent chills do not occur.

Frank L. Day—Do we not have chills in suppurative pancreatitis.

Prof. Fitz—Sometimes.

Wm. A. Gorton wished to express his thanks to *Prof. Fitz* for bringing up this important and interesting subject. We will probably know more about it soon. We did not use to examine pancreas in New York when I was a student.

Prof. Fitz spoke of the treatment. Abstain from much treatment if pancreatic disease is diagnosed. Intestinal obstruction has been mistaken for this disease and only one case has ever recovered where laparatomy was resorted to. Do not perform laparatomy too early.

C. O'Leary asked, whether a physician in certifying to the cause of death would be warranted in stating that death was caused especially by disease of the pancreas, as distinctly as he can state that pneumonia is the cause of death, and whether disease of the pancreas is found to exist not complicated with disease of the liver and surrounding organs?

Prof. Fitz—If extensive inflammation of the pancreas is found, this disease is present as surely as is an aneurism of the aorta. In chronic cases with gangrene and suppuration or hœmorrhage, the disease may extend to the liver; or may cause perforations into the stomach, duodenum and other neighbouring organs.

WILLIAM A. GORTON READ A PAPER ON TWO CASES OF PARANOIA.

The two cases in question were inmates of *Butler Hospital for the Insane*, of which institution the Doctor is Medical Superintendent. *In the first case, a young man;* there was no history of insanity in the family. No hereditary nervous disorders, but not a very brilliant family. The boy was a fair scholar, prepared for college at 18 and studied hard; graduated and became a teacher. Began to have mental peculiarities at times. Was haunted by a belief that trustees were dissatisfied with his work and wanted him replaced. No mental disturbances for first two years. Began to suspect that everybody talked about him, wanted to be alone very much, began to have delusions and had to quit work. At the end of three months he was so much better that he could resume work. In five months he had to quit work and go to a hospital. He concealed his feelings while there, seemed to improve and took up an occupation in three months. He would seek seclusion. Would always devise explanations for his delusions, carried loaded revolver for two years, had hallucinations of homicide; had to enter institution again and is now permanently cared for. His case was one of persecution delusions.

Second case. Young man, 28, American. No history of insanity in family, five other children, healthy. Was a peculiar child. Always a fair scholar and did well in college but was all the time a little eccentric. Disagreed once with his father, pulled a pistol from his pocket and threatened to shoot himself; afterwards prepared to take laudanum. Father died shortly afterwards. After graduating from college found himself involved in lawsuits about property. Changed counsel very often. He entered the room where his father lay dead and caused a disturbance. Lived in New York, and changed from one business to another. Studied law and filled position as private secretary. Tried suicide again. Has been known as a crank and drinks heavily. Suffers from insomnia, speaks ramblingly, afraid of being attacked, many little things trouble him. In school he was nervous and rambling, always anxious about himself. He always regretted that "he made such a damned bad shot when he tried to shoot himself." Wanted to go to foreign hospitals. He himself was always right, never made a mistake; it was always others who were wrong. Threatened to get even with

the medical profession. He once drew a pistol and waited for hours for his friends to appear. Once he was sent on a long sea voyage without apparent good. Is now permanently secured.

Deductions. Germans classify it as a primary lesion. At adolescence it develops very rapidly, usually at or about 40. Seems to be a morbid self conscience—afraid of surroundings. May be classified in 3 stages.

1. We have only slight symptoms, or what is known as a *mild crank.* Can be cured at this stage.

2. Same as the former, only little more aggravated. May also be cured.

3. Hallucinations, illusions, particularly of sense of hearing.

Treatment. Insist upon your requests of patient. Look into love affairs and other disturbances and try to correct them, for a firm and intelligent treatment in the right direction may cure patient.

We must understand the disease, however; diagnose it early; and proper laws, covering such disease, should be enacted. Some are able to take care of themselves.

J. W. C. Ely said he would like to hear from *G. F. Keene*, Medical Superintendent of the State Institution for the Insane at Cranston

Geo. F. Keene said the disease was well described by *Dr. Noyes* in *Journal of Mental and Nervous Diseases* for March, 1888. The disease is not a waste-basket where physicians can dump questionable diseases. In the asylum these patients will always try to invent some new schemes to solve great public questions, as well as in learned societies.

It is a degenerative, egotistical perversion of the *ego.* Sometimes we may mistake it for melancholia, but in paresis and melancholia the delusions are not distinct, and a paranoiac is usually bent on homicide, while the one suffering from melancholia generally commits suicide. There is always a moral perversion that he is threatened with persecution, and marked *efforts to conceal* and deny his symptoms.

The society adjourned to meet on the first Monday in March, and repaired to an appetizing lunch prepared by caterer Tillinghast.

THE PROVIDENCE MEDICAL ASSOCIATION

Meets at 54 North Main street, the first Monday of every month at 8 o'clock, P. M

OFFICERS.

Robert F. Noyes, President,	Providence, R. I.
F. B. Fuller, Vice-President,	Pawtucket, R. I.
James H. Kingman, Secretary,	86 Broadway, Pawtucket, R. I.
J. H. Davenport, Treasurer,	Providence, R. I.

STANDING COMMITTEE.

R. H. Carver, Chairman,	W. R. White,
John W. Keefe,	G. T. Swarts,
F. L. Day.	

READING ROOM COMMITTEE.

George D. Hersey, Chairman, George W. Porter,
John W. Keefe.

COLLATION COMMITTEE.

F. T. Rogers, S. R. Upham, J. H. Davenport.

The annual election of officers occurs in March, 1893.

MONTHLY MEETING DECEMBER 5, 1892.

THE President, **Robert F. Noyes,** in the chair, **J. H. Kingman**, secretary. A resolution looking to improved roads and streets from the committee of the State Legislature was presented, and referred to the standing committee.

L. F. C. Garvin read a paper on Recent Permanent Advances in Obstetrics with comments which is published in full in the Monthly elsewhere.

DISCUSSION.

Herbert Terry said in substance, that without doubt, a great deal of harm has been done with forceps, but not if properly used. The greatest mistake perhaps was in not allowing time enough in the delivery for the head to mold itself so as to fit the pelvis. In regard to placenta prævia it is the duty of the physician to stay by the bed-side of his patient from the time flowing begins until labor is completed, provided the child is at a viable age. No force, however, should be used in the delivery more than is necessary. If turning can be done by the Braxton-Hicks method it may simplify matters. The hœmorrhage can be controlled by separating the placenta a little at a time and frequently endeavoring not to separate so much as to interfere with the oxygenation of the child's blood.

Grandie of New York has recently advised tamponing the uterus with iodoform (aseptic) gauze in post-partem hœmorrhage, a procedure which probably would find few adherents. The better way would be to prevent the accident by properly conducting the third stage of labor and "holding" the uterus for a time afterward. Of course those hœmorrhages from varicose veins in the vagnia or from a torn cervix are not under consideration.

There are many questions now before the profession which the paper has not touched upon. I will mention *symphysiotomy*, which is now attracting considerable attention abroad, and *cæsarean section* as an operation of election, a question about which very much is being written at the present time. Great advance has been made, too, in the application of asepsis to midwifery, the management of posterior positions, the make of forceps and the application of axis traction rods and in the preventive treatment of eclampsia. I think of nothing else at present.

C. H. Leonard spoke of tamponing the uterus after labor to prevent post partem hœmorrhage, and asked the experience of the others on this point.

H. Terry said post partem hœmorrhage was not common; was due to pieces of membrane being left; it was also due to extensive laceration of cervix, or large veins of vagina, or to the fact that the patient was a "bleeder" by inheritance. Thinks tamponing of uterus with gauze a rather dangerous proceedure; might possibly be useful in a few cases.

J. Noyes recalled the experience of a doctor in Detroit who used to introduce a lemon into the uterus and how elegantly the lemon would be "squeezed" out. Referred to two cases of post partem hœmorrhage years ago, which were checked by tampon soaked in solution of persulphate of iron.

W. R. White referred to the value of axis traction forceps. Only danger in using them is the possible injury to the soft parts.

F. B. Fuller thought version was in many cases safer for the child and not more dangerous for the mother than the use of forceps in cases where the head was arrested at the brim of the pelvis.

L. F. C. Garvin mentioned massage as a valuable means to prevent post partem hœmorrhage.

PAPER BY GEO. W. PORTER ON RECENT PROGRESS IN GYNECOLOGY.

The speaker described various methods of performing hyoterectomy.

10 per cent. of fibroids require operative interference.

The treatment is: First, leave them alone and wait for menapause; second, remove tumor; third, remove appendages. The use of drugs is useless. The third method has not been very successful. Curretting does not check growth, may check hœmorrhage. The symptoms observed during the first method of treatment should decide what is best to do. Menapause does not always check growth. The hœmorrhage in these cases is rarely fatal. Tumor may become malignant.

Cancer of uterus, if operated on early, may be wholly cured in many cases. Described Polk's method of curretting and draining uterus in cases of chronic metritis.

This mode of treatment is dangerous, if not done properly; if done right, not so. Speaker doubts if this method will ever be very generally employed.

The author of the paper exhibited a portable table for placing patient in the Trendelenburg posture. The paper was listened to with much attention and appreciation.

BOSTON MEDICAL LIBRARY ASSN. DEC 21 1894

H. Canfield read a paper on: The Azores as a Health Resort. The author described his trip in a very interesting manner, the characteristics of the natives, the island, its baths and medicinal waters. Said the waters had been very beneficial in rheumatic affections (chronic principally).

The speaker had suffered from nervous prostration and had been much benefited.

Two names were proposed for membership. Adjourned to the first Monday in January, 1893.

WASHINGTON COUNTY MEDICAL SOCIETY.

THE Washington County Medical Society was organized January 31st, 1884, with Dr. E. R. Lewis, of Westerly, as *President;* Dr. A. B. Briggs, of Ashaway, as *Vice-President;* Dr. F. T. Rogers, of Westerly, as *Secretary* and *Treasurer*.

It became an incorporated body under the laws of the State in April, 1886.

Following Dr. Lewis, its *Presidents* have been successively, Drs. A. B. Briggs, J. H. Morgan, A. R. Collins, E. P. Clarke, H. J. Pomroy, A. A. Saunders and P. K. Taylor. Dr. Rogers served as *Secretary* and *Treasurer* until he moved from Westerly, in the fall of 1889.

The officers for 1892 are: *President*, Dr. John Champlin, of Westerly; 1st *Vice-President*, Dr. E. E. Kenyon, of Usquepaug; 2nd *Vice-President*, Dr. William James, of Westerly; *Secretary* and *Treasurer*, Dr. J. Howard Morgan, of Westerly.

The annual meeting occurs on the first Thursday in January, and is held in Westerly; the quarterly and semi-annual meetings are held in different parts of the county as may be most convenient. These meetings are held in the daytime, but intervening monthly meetings, attended by members from Westerly and Ashaway, are held in the evening at the houses of members.

SOCIETY REPORTS.

THE RHODE ISLAND MEDICAL SOCIETY.

OFFICERS.

William H. Palmer, President, 128 North Main street, Providence, R. I.
Robert F. Noyes, First Vice-President, 14 Jackson street, Providence, R. I.
Elisha P. Clark, Second Vice-President, Hope Valley, R. I.
William R. White, Recording Secretary, 7 Greene street, Providence, R. I.
George D. Hersey, Cor. Secretary, 500 Broad street, Providence, R. I.
George L. Collins, Treasurer, 223 Benefit street, Providence, R. I.

CENSORS.

J. W. C. Ely, G. W. Jenckes,
Benjamin Greene, H. G. Miller,
Eugene Kingman, W. R. White,
J. H. Morgan, F. H. Rankin.

BOARD OF EXAMINERS.

Charles H. Leonard, Walter L. Munro,
Franklin M. Eaton, Stephen A. Welch,
Frederick T. Rogers.

STANDING COMMITTEES.

OF ARRANGEMENTS.

C. M. Godding, E. F. Walker, J. W. Keefe.

ON PUBLICATIONS.

G. D. Hersey, C. M. Godding, G. T. Swarts.

ON THE LIBRARY.

H. G. Miller, G. D. Hersey, G. W. Porter,
G. L. Collins, C. V. Chapin.

ON THE MUSEUM.

W. J. McCaw, G. T. Swarts, F. B. Fuller,
C. M. Godding, S. A. Welch.

ON NECROLOGY.

E. Kingman, A. F. Blaisdell, C. H. Leonard.

LEGISLATION.

G. T. Swarts, A. B. Briggs,
F. H. Peckham, Jr., J. Frederick Haller,
Henry Ecroyd.

AUDITOR.

F. A. Peckham, Jr.

Fourteen candidates have applied for admission to the Society, and will be examined during this month and voted on at the meeting in March.

The Society meets on the first Thursday in March, June, September and December. The annual meeting occurs in March, when officers are elected and general business transacted.

The present active membership of the society is 227.

OBITUARY.

During the year of 1892 the R. I. Medical Society lost five of its most active and respected members, whose useful careers were suddenly terminated by the man with the scythe, before whom all physicians must yield ultimately.

GEO. A. PIKE,

BRISTOL, R. I.

GUSTAVE RADEKE,

PROVIDENCE, R. I.

GEO. W. STANLEY,

SLATERSVILLE, R. I.

EMMA F. SUTTON,

PROVIDENCE, R. I.

H. W. STILLMAN,

WOONSOCKET, R. I.

THE CONNECTICUT MEDICAL SOCIETY.

THE Connecticut Medical Society was organized in Middletown in October, 1792. It comprises the members of the Medical Associations of each county in the State. The requirements for admission are residence and practice within the State, and either a degree from an authorized medical college, or a license granted by the Society. It has no active members outside the State, as membership ceases on leaving the State. The present membership is 531. The officers are:

PRESIDENT, CYRUS B. NEWTON,	Stafford Springs.
VICE-PRESIDENT, FRANCIS P. EDGERTON,	Middletown.
SECRETARY, N. E. WORDIN,	Bridgeport.
TREASURER, W. W. KNIGHT,	Hartford.

Besides these the president of each county association is *ex-officio* vice-president of the state society. These are:

W. A. M. WAINWRIGHT,	Hartford, Hartford County.
SAMUEL D. GILBERT,	New Haven, New Haven County.
GEORGE H. JENNINGS,	Jewett City, New London County.
FRANCIS J. YOUNG,	Bridgeport, Fairfield County.
E. H. DAVIS,	Plainfield, Windham County.
WILLIAM J. FORD,	Washington, Litchfield County.
MINER C. HAZEN,	Haddam, Middlesex County.
STEPHEN G. RISLEY,	Rockville, Tolland County.

The meetings of the society are annual, upon the last Wednesday and Thursday in May of each year, and alternately in Hartford and New Haven. The meeting of Wednesday is for business only and none but the Fellows have the privilege of voting. The Fellows consist of five delegates chosen from each county at its annual meeting excepting that Tolland county has only three. All the officers are also Fellows. The meeting on Thursday is for the reading and discussion of medical papers, and the reception of delegates from other societies. The proceedings form a record of the work done at these annual meetings.

N. E. WORDIN, *Secretary.*

AMERICAN MEDICAL ASSOCIATION.

CODE OF ETHICS, CONSTITUTION AND BY-LAWS.

THE Committee of Revision, appointed at the last meeting of the Association, are desirous of obtaining as full an expression as possible of the changes desired by the members, and to this end solicit correspondence upon the subject from all interested. Communications can be addressed to either of the following: Dr. A. M. Holton, Chairman, Brattleboro, Vermont; Leartus Connor, Detroit, Mich.; H. D. Didama, Syracuse, New York; Daniel T. Nelson, Chicago, Ill.; and Benjamin Lee, Philadelphia, Pa.

THE R. I. DENTAL SOCIETY.

President, S. W. Clark, M. D., D. D. S.
Vice-President, F. A. Arnold, D. M. D.
Secretary, Henry N. Gillett, D. M. D.
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THE object of the society is to create a more fraternal intercourse, to facilitate the interchange of ideas, to promote the progress of the theory and practice of our profession, and hence to favor the welfare of our patients. Any respectable practicing dentist who has attained his 21st year may, on the recommendation of a member in good standing become an active member of this society on receiving a vote of two-thirds of the members present at any regular meeting, signing the constitution and by-laws, and pay the required fee. A member is bound to maintain its honor and to labor to extend its usefulness. We consider it unprofessional to resort to public advertisements, cards, handbills, posters or signs, calling attention to peculiar styles of work, lowness of prices or to claim superiority over neighboring practitioners; to publish reports of cases or certificates in the public prints; to go from house to house to solicit or perform operations or to perform any similar acts. Dental surgery is a specialty in medical science. Physicians should bear this in mind. The dentist is professionally limited to diseases of the dental organs and the mouth. With these he should be more familar than the general practitioner is expected to be; and while he recognizes the superiority of the physician in regard to diseases of the general system, the latter is under equal obligations to respect his higher attainments in his specialty. When this principle governs there can be no conflict or even diversity of professional interests.

S. W. Clark, M. D., D. D. S.

THE PAN-AMERICAN MEDICAL CONGRESS.

IT WILL be remembered that at the Meeting of the American Medical Association, held at Washington, D. C., May 5th, 1891, a resolution was adopted, to the effect that the Association extend an invitation to the Medical Profession of the Western Hemisphere, to assemble in the United States in an Inter-Continental American Medical Congress.

A committee was nominated with one member from each State and

Territory, and one each from the Army, Navy and Marine Hospital Service, said committee being instructed to effect a permanent organization. After a great amount of labor this committee has finished its work in the United States and Canada, and we think in most or all the countries of South America.

The preliminary announcement of the first Pan-American Medical Congress, which is to meet at Washington, D. C., U. S. A., on September 5th, 6th, 7th and 8th, A. D. 1893, has been issued, making a pamphlet of sixty-four pages, a copy of which will be sent to any person interested, who will apply to the Secretary-General, Dr. Charles A. L. Reed, 311 Elm street, Cincinnati, O.

The announcement contains a list of the committee for permanent organization, a joint resolution passed by Congress authorizing the President to invite certain governments to send delegates to the Pan-American Medical Congress, general regulations for organization, special regulations of the first Congress, list of the General Officers, list of the officers of the various sections, the Auxiliary Committee, and a list of Medical Journals published in the countries from which the Congress is made up.

We would call *particular attention* to the following points taken from the special regulations. A registration fee of $10.00 is required of each member residing in the United States, and each member shall receive a card of membership and be furnished a set of the transactions. All fees should be forwarded to Dr. Abraham M. Owen, 507 Upper First street, Evansville, Ind. Contributors are required to forward abstracts of their papers, not to exceed six hundred words each, to the Secretary-General not later than the tenth of July, 1893. These abstracts shall be translated into English, French, Spanish and Portuguese, and shall be published in advance of the meeting, and no paper shall be placed upon the programme which has not been thus presented by abstract. Papers to be presented to Sections must not consume more than twenty minutes each in reading, and when of greater length must be read by abstract. Abstracts should be forwarded to the Secretaries of Sections.

All papers read in the Sections shall be surrendered to the Secretaries of the Sections; all addresses read in the General Session shall be surrendered to the Secretary-General as soon as read; and all discussions shall be at once reduced to writing by the participants.

The General Officers of the Congress, are *President*: William Pepper, M. D., LL. D., Philadelphia, Pa., with seventy-two *Vice-Presidents;* among this number we notice Dr. W. A. M. Wainright, of *Conn.*, Dr. Thomas A. Foster, of *Maine*, Dr. Reginaldo H. Fitz, of *Mass.*, Dr. Granville P. Conn, of *New Hampshire*, Dr. Seneca D. Powell, of *New York*, Dr. L. M. Bingham, of *Vermont* and Dr. Elisha P. Clarke, of *Rhode Island.*

Secretary-General; Dr. Charles A. L. Reed, of Cincinnati, O., with nine *Assistant Secretaries General;* among that number being Dr. Wm. F. Hutchinson, of Rhode Island, and Dr. Irving A. Watson, of New Hampshire.

Treasurer: Dr. Abraham M. Owen, Evansville, Ind.

Chairman of the Committee of Arrangements: Dr. Samuel S. Adams, Washington, D. C.

Space will not admit of our giving the Officers of the various Sections, but the following is a list of the English speaking secretaries, from whom any information respecting papers, etc., can be obtained. *General Medicine*—Dr. Judson Daland, 317 South 18th street, Philadelphia, Pa. *General Surgery*—Dr. Joseph Ransohoff, 296 Walnut street, Cincinnati, O. *Military Medicine and Surgery*—Maj. John Van R. Hoff, Sur. U. S. A., Fort Riley, Kansas. *Obstetrics*—Dr. Hugh Hamilton, Harrisburgh, Penn *Gynecology and Abdominal Surgery*—Dr. Brooks H. Wells, 72 W. 45th St., New York, N. Y. *Therapeutics*—Dr. Edward Randall, Galveston, Texas. *Anatomy*—Dr. D. S. Lamb, 800 10th St., N. W., Washington, D. C. *Physiology*—Dr. A. P. Brubaker, Jefferson Med. College, Philadelphia, Pa. *Diseases of Children*—Dr. W. P. Northrup, No. 57 E. 79th St., New York, N. Y. *Pathology*—Dr. David Inglis, 21 State St., Detroit, Mich. *Ophthalmology*—Dr. Geo. M. Gould, 119 S. 17th St., Philadelphia, Pa. *Laryngology and Rhinology*—Dr. T. Morris Murray, Washington, D. C. *Otology*—Dr. S. O. Richie, Washington, D. C. *Dermatology and Syphilography*—Dr. Wm. S. Gottheil, 78 W. 46th St., New York, N. Y. *Hygiene, Climatology and Demography*—Dr. Peter H. Bryce, Toronto, Canada. *Marine Hygiene and Quarantine*—Dr. S. T. Armstrong, 166 W. 54th St., New York, N. Y. *Orthopædic Surgery*—Dr. Robert W. Lovett, Boston, Mass. *Diseases of the Mind and Nervous System*—A. B. Richardson, Columbus, Ohio. *Oral and Dental Surgery*—Dr. John S. Marshall, Chicago, Illinois. *Medical Pedagogics*—Dr. T. O. Fitzpatrick, 136 Garfield Place, Cincinnati, Ohio. *Medical Jurisprudence*—Dr. Harold N. Moyer, 834 Chicago Opera House, Chicago, Ill. *Railway Surgery*—Dr. E. R. Lewis, Kansas City, Missouri.

DIFFERENT THEORIES ON CHOLERA.

DR. H. NORDENSTROM IN "EIRA" STOCKHOLM.

PETTENKOFER'S paper in *Münchener medic. Wochenschrift* for Nov. 15th has rather relegated other theories on cholera to the back ground. *Pettenkofer* has experimented upon himself, as he does not recognize experiments upon animals. On the 7th of Oct., in the presence of several physicians, he partook of some bouillon, containing billions of cholera-bacilli from Hamburg. As Koch had asserted that the acidity of the gastric juice antagonizes the bacilli, he had before neutralized the gastric juice. He did not change his diet in the least. He partook freely of fresh

fruit, salad, milk, wine and beer. His defecations were very loose, and proved that the bacilli had increased enormously in the intestines; but his general health remained good. A young colleague of P., Prof. Emmerich, tried the same experiment, but was careless of his diet. The result was a profuse diarrhœa, but his general health remained good and after eight days the diarrhœa had entirely disappeared.

These experiments show, says Pettenkofer, that the comma bacillus does not produce the virus of asiatic cholera. He does not contend that the comma bacillus *has no* etiological importance, but it cannot cause an epidemic without favorable *local* disposition. Those who have held that where an *individual* disposition exists, cholera must *necessarily* follow, where the comma bacillus is present, have eliminated this view of Pettenkofer, and are known as contagionists. Seen from the practical side of the question it is of very little consequence, says P., whether one sides with the contagionists or not. The rules now being laid down for prevention of cholera are founded on the contagion theory. One must, where cholera is suspected, first ascertain the presence of the comma bacillus, next isolate the patient, disinfect his excreta, house, etc. If this had been done in Hamburg the epidemic would never have broken out!—"According to this theory"—says P.—"Emmerich and I should have been sent to the cholera barracks in München without mercy and our houses would have been disinfected; it was unfortunate that this was neglected, for the contagionists could then have loudly proclaimed, that *they* had saved München from cholera, as E. and I otherwise would have infected the city." In the same paper P. condemns the practice of experimenting with comma bacillus in animals (guinea pigs), as being entirely worthless.

Incidentally he also mentions the great disappointment experienced by the contagionists in not finding a single comma bacillus in the water supply of Hamburg or in the river Elbe, also that the discovery of the comma bacillus has led to no more results in checking or curing the Asiatic cholera than the discovery of the tubercle bacillus has in the case of tuberculosis.

The French bacteriologists seem to assert pretty generally, that the bacilli found during the epidemic at Paris this year, are not identical with those described by Koch. Many of the leading French authorities claim that cholera was not imported this time, but was caused by a "revitalization of cholera spores" from a former epidemic (the one of 1884).

Even in England, considerable opposition is raised to the comma bacillus as being the cause of cholera. The fact that one case of cholera can occur in a community, without any more cases following it, is held out as a strong proof.

It is difficult to understand where the bacillus originated in such a case, and why it should have such a limited effect. The report of "Sanitary matters in India in 1891," recently published in England, contains much information about the condition and spread of cholera from Hurdwar (the great meeting place for pilgrims) during that year.

Nearly 700,000 pilgrims had congregated at this place, to bathe in the river and drink the holy water. Samples of this water, taken at the bathing place during 1891, contained numerous comma bacilli, and the presence of the bacilli had been considered to be the cause of cholera breaking out among the pilgrims, and for this reason the festival was terminated on the 25th of March, 1892. If cholera had broken out among the returning pilgrims, the comma bacilli found in the water could have been considered as the cause thereof, but no cholera appeared among these returning pilgrims. It is therefore a matter of doubt if the bacilli found in the river really caused any of the cholera at Hurdwar, India.

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MEDICINE.

SOME OF THE NEWER HYPNOTICS.

By E. W. MITCHELL, M. D.,

Professor of Theory and Practice, Cincinnati College of Medicine and Surgery.

OF late years the energies of the chemists have been most unremittingly devoted to the production of *antiseptics*, *antipyretics* and *hypnotics*. Of the great number introduced with high laudations as to their efficiency and safety, but few in either group have obtained an established place in practice. The mercurials, carbolic acid and iodoform still stand at the head of antiseptics in professional favor. *Water* remains the best and safest of antipyretics, although the coal-tar products have their places and values.

Of the newer synthetic agents which have the property of inducing sleep, not one *fully* takes the place of older remedies, although several of them are valuable additions to our *armamentarium*.

The high tension of modern life creates a great and increasing demand for remedies of this class. The tempation to the routine prescription of some of the many hypnotics is one to be resisted. Yet, when the practitioner has done his best in the use of milder remedies, the application of hygienic measures and the regulation of the habits of living, there remain very frequent occasions when the use of a hypnotic is necessary.

The possession of a remedy which will produce sleep with certainty, without unpleasant or dangerous after effects, and without establishing a habit of dependence, is, therefore, "a consummation devoutly to be wished." Man is too much the creature of habit to expect that there can be absolute freedom from the latter danger, whatever the drug. Nor can we reasonably expect that any substance powerful enough to benumb the centers of intellection and annul consciousness, shall not also exert a powerful influence upon the centers presiding over circulation, respiration and nutrition, if taken in large quantity or for a long

time. Wisdom and caution in the adminstration of hypnotics must remain, therefore, the chief guarantee of safety for the patient.

As a rule each new remedy, when introduced, is said to be free from danger or deleterious effects. There follows an almost reckless use of the drug, with the result that cases of poisoning soon begin to appear in the jouruals. Of those which may be said to be practically laid upon the shelf by the profession at large, we may mention, to dismiss, hypnone, urethan, methylal, amylene hydrate, trional and tetronal.

Paraldehyde is a safe and fairly efficient hypnotic. It seems to retain its favor, especially in asylum practice. In private practice it is objectionable on account of its disagreeable taste. An interesting and valuable clinical study of the comparative merits of paraldehyde and sulphonal is given by Dr. C. M. Hay, in the *Am. Jour. Med. Sci.* 1892, July. His conclusions are:

1. That paraldehyde is safer where a continuous action is desired.
2. Paraldehyde has a wider range of application in mental diseases.
3. That in all depressed mental states sulphonal acts ineffectively.
4. That a high degree of debility with insomnia contra-indicates sulphonal.
5. That in 18 per cent. of cases various degrees of sulphonal intoxication appear, and that it would seem that the drug is capable of being dangerous to life, and, therefore, the commencing dose should be small, some persons being extremely sensitive to its influence.
6. That effects of sulphonal are not always in proportion to the dose, and that in some cases it seriously interferes with the bodily secretions, while paraldehyde does so to a much less extent.

Others speak much more favorably of the action of sulphonal in asylum practice.

The extent to which sulphonal has been used is almost beyond calculation. Given with due caution, it is reasonably safe, and is one of the most certain drugs in its hypnotic action. One objection to it is its slowness in taking effect—the interval being usually two or three hours. This objection can be partly met by ordering it taken immediately after the evening meal, or near bed-time, in *hot* milk. Occasionally the effects are not manifested until the next day. Often drowsiness or some lethargy persists during the following day. Very large doses have been recovered from. The smallest fatal dose I have found recorded is thirty grains taken in two equal doses, 1 1-4 hours apart. Profound sleep ensued, with gradual failure of the respiration and death from asphyxia in 40 hours. (R. R. Petitt, *Medical News*, Aug. 10, 1889.)

Another case is reported, in which a dose of 15 grains was followed almost immediately by giddiness, headache, nausea, vomiting and faint-

ness. A repetition of the same, a few days later, was followed by the same symptoms. (*Journ. Nervous and Ment. Dis.*, N. Y., July, 1891.

In the majority of cases, in which decidedly poisonous effects have ensued, they have appeared after a prolonged use of the drug, and often suddenly. The first symptoms being most commonly diminution of the urine, which becomes of a dark violet color (from presence of indican) and contains epithelial and hyaline casts.

Breslauer (*Wiener Med. Blätter*, 1891; *Annual Univ. Med. Sci.*, 1892, Vol. V., p. 136) has tabulated seven cases of poisoning, five of which were fatal. In these very obstinate constipation was the first symptom. The action of the drug was suddenly manifested in deep stupor, vomiting, weak and rapid pulse, and great diminution of the urine.

I early learned, in giving sulphonal, that the effect in securing sleep could often be maintained by administering it every second or third night. Others have recently reported the same observation. Frequent interruptions in its use would seem to be an important element of safety.

Mattison and others have reported cases of sulphonal habituation. I have not myself been able to observe such a tendency in any case. Unfortunately the laity have learned to administer it to themselves. Sulphonal has also been reported as useful in spasmodic affections, *e. g.*, asthma, epilepsy, chorea, hiccough, chordee. Dr. Andrews reports success with it in arresting the painful cramps of fractured limbs. (*Journ. Americ. Med. Ass.* 1892 (2), p. 239.)

Chloralamid has seemed to me less certain in producing sleep than sulphonal. It has the advantage of taking effect, if at all, within an hour, as a rule in half an hour. Its taste is objectionable. The dose, to be efficient, must be from twenty to sixty grains. Not infrequently some headache and lassitude follows during the next day.

My colleague, Prof. Thorner, has related to me a case of a very nervous woman, in whom doses of 15 to 30 grains of chloralamid produced disturbed sleep, and on the following day a feeling of illness with intense itching all over the body. The same patient had had similar effects from the administration of Chloral. Sulphonal was followed by no unpleasant effect.

Both sulphonal and chloralamid should be given with great caution, if at all, in patients with cardiac weakness, or in adynamic conditions. Paraldehyde is safer in such cases.

Somnal is a later rival of sulphonal. It was discovered by Radlauer, of Berlin, in 1889. Dr. O. M. Myers, of Rochester, N. Y., from an elaborate clinical and experimental study of this drug, reaches the following conclusions:

1. Locally, somnal is non-irritant, exerting rather a stimulating

effect upon the mucous membrane of the stomach. When applied directly to the heart of the frog, it acts as a powerful poison, destroying its electro-excitability.

2. In therapeutic doses the drug exerts no appreciable physiological effect upon the heart, and may be regarded as safe. Toxic doses depress that viscus; (*a*) by direct action upon the muscle-fibre; (*b*) by stimulation of the cardio-inhibitory centres.

3. Therapeutic doses have little or no effect upon the pulse rate. A slight primary rise in the arterial tension may be observed, which soon returns to normal, or may even fall below—the latter probably due to muscular relaxation during sleep. Toxic doses rapidly diminish pulse-rate and pressure; probably due to direct action upon the ganglionic heart-centers.

4. Ordinary doses cause the respiration to become slow and full. Toxic amounts induce rapid, shallow and irregular respiration; the result of depression of the respiratory centre at base of brain.

5. As, in therapeutic doses, sleep is induced without perceptibly affecting any other portion of the economy, it is fair to conclude that somnal acts directly and primarily upon the cerebrum. (*Medical Record*, March 12, 1892.)

Chemically, somnal is ethylated chloral urethan. It is a clear liquid, made from chloral, alcohol and methan. It behaves in cold water like chloroform; is soluble in hot water and alcoholic solutions. The taste is pungent, and it should be freely diluted for administration. In doses of two grammes (grs. 30) sleep is ordinarily produced in about half an hour, and lasts six to eight hours. It does not produce sleep, if there be severe pain, maniacal delirium or insomnia from acute inflammatory conditions. No evil or unpleasant after-effects have so far been reported. It is not cumulative.

A change from one hypnotic to another, where there is necessity for continous use, is often advisable.—*The Cincinnati Medical Journal.*

UTAH'S BOARD OF MEDICAL EXAMINERS.

At its last session, the legislature of Utah passed an act regulating the practice of medicine in the Territory and creating a board of medical examiners to enforce its provisions. Gov. Thomas has appointed six of the seven members, giving the regular profession four members, the homœopaths and eclectics, one each, and leaving one vacancy. The character of the gentlemen appointed promise the enforcement of the law and the downfall of the quack who now flourishes profusely.—*Western Med. Reporter. Pittsburgh Med. Review.*

OBSTETRICS.

SOME OF THE ORDINARY DUTIES OF THE OBSTETRICIAN.

JOHN MILTON DUFF, A. M., M. D.

Before the Alleghany Co. Medical Society, Nov. 15, 1892.

EXCEPT for a slight technical difference the topic might as well have been stated "some of the routine duties of the obstetrician," as most of his ordinary duties should be a matter of routine performed with scientific precision and with a due regard to the sacredness of the obligations devolving upon him. The practical duties of the obstetrician begin with the union of the male and female pronuclei and end only when the process of involution is complete.

It is his duty to watch over the welfare of the mother and child all through the pregnancy, and to take care of all of the accidents or complications which may take place during this important and interesting developmental period: to be present at labor and conduct it with the greatest possible safety to both mother and child and to direct the treatment of both during the lying-in.

I repeat these are his ordinary duties and none can be more sacred or responsible. No branch of medical practice calls for more tact and skill, more erudition and profound judgment.

This leads me to say that the first duty of the obstetrician is to see that he has an intimate knowledge of his work, not alone that he is conversant with the mechanical skill requisite in the delivery of a woman; but that he has a broad and intelligent acquaintance with all that pertains to his art.

In other words, it is his duty to fit himself out as a physician in the fullest sense of that term. The title obstetrician, does or should presuppose an educated physician. Theoretically we cannot conceive of the obstetrician apart from education; nevertheless one of the dark spots on our civilization is the fact that all around and about us ignorant midwives of both sexes, midwives utterly destitute of a knowledge of the first principles of medicine, are permitted to take charge of, to care for and protect the fair mothers of our land in that critical and trying time, "the period of labor."

After having acquired the called-for preliminary education the next duty of the obstetrician is to possess himself of all the necessary instruments, drugs and appliances for the successful practice of his art as taught by the best teachers and writers.

He should cause it to be generally understood among his patrons that those wishing to employ him must engage him prior to the expected time of confinement, one of the principal reasons being that he may call upon his patient previous to labor setting in, and ascertain the actual conditions of her case.

When engaged he should furnish the party with something like the following card which I use myself, and which has been adopted by "The Pittsburgh South Side Physicians' Association."

Engaged.	**OBSTETRIC ENGAGEMENT.**
Expected . . .	Pittsburgh, Pa., Nov. 14, 1892.
Name	Mr. John Jones, No. 3848 Carson street, 40th ward, has this day engaged me to attend his wife in confinement, which is expected about December 1st, 1892.
Occupation . . .	John Milton Duff, M. D.
Residence	
Name of wife .	Rule of South Side Physicians.
Remarks.	If the physician engaged cannot be secured at the time he is needed, this card must be presented to any other physician called upon, to warrant his attendance.
. . . . .	All cases of midwifery cash.

The card is a protection against "dead beats" and is a guarantee to any physician who may be called in the absence of the expected attendant that the case is a worthy one.

When the preliminary visit is made to the patient, the physician should write upon the reverse side of this card the results of his examination, then if another physician should have to be called in his absence, he will have the benefit of the knowledge thus imparted.

No one should engage positively to attend a woman in her confinement. A proviso should always exist.

"On making a promise to attend a woman when notified that she shall be in labor, he can be held liable for breach of contract, but not for personal injury or suffering, if, because of his willful neglect to fulfill his promise, harm comes to the woman." (*Hunter v. Ogden, 1 Queen's Bench, 132.*)

"On the other hand, he can collect his fee, if after contracting with a patient to attend her in labor, she, without notice and unnecessarily, neglects him, by calling in some other physician." (*Obstetric and Gynecic jurisprudence appendix, Cazeaux Tarnier, p. 1180.*)

In this connection I may just say, that if while in attendance upon a woman the attendant leaves her, and any accident happens to her or the child during his absence, he is legally responsible for the results. That while he is responsible for errors of *omission* as well as of *com-*

mission, errors of judgment are not considered malpractice in themselves when the party has not otherwise offended by negligence or rash experiment.

"If when attending a case of labor he, for some other reason than danger to his life, leaves the woman before delivery is completed and before the arrival of another physician, he may be held liable for damage if the woman suffer from want of help, and for manslaughter if the patient dies in consequence of this neglect."

Braxton Hicks, London Lancet, Aug. 1, 1885. "A physician was tried for manslaughter on account of having deserted a woman in labor, whom he had been called to attend, because of abusive language employed by the husband toward him. Other medical assistance was obtained after a time, but the labor was a difficult one, the woman subsequently dying of puerperal fever. The physician was acquited, since it could not be proved that the same result might not have followed had he remained with the patient, but it was strongly laid down by the judge that a medical man should on no account leave a woman in labor, except his life was in peril; that he should tell them to get another attendant and not leave until the arrival of the other; otherwise should the woman suffer from want of help, he would be held responsible for it."

On visiting his patient the first thing for consideration is the existence of pregnancy. Is the woman pregnant? Her assertion that she is can only be accepted as presumptive evidence. A physical examination revealing the positive signs of pregnancy must be the guide to a decision.

If pregnancy exists a note must be made of the probable time of gestation, the presentation, the position, the external measurements of the pelvis, the number of the pregnancy, the history of previous pregnancies, if any, the existence of complications, the general health, family history, etc.

Inquiry should then be made with regard to the nurse, and instructions given relative to the preparation of the room and bed. Necessary medicines, brandy, a fountain syringe and other effects should be ordered. If the woman does not understand the nature and importance and the manner of procuring asepsis, she should be told in as plain a manner as possible of its importance for her comfort and safety and directed how to ensure it.

If in the examination any diseased condition is present, it should be prescribed for. If the presentation is abnormal, if the time is not too far distant from the expected confinement it should be rectified. I speak thus advisedly, because I do not think, as a rule, attempts should be made to perform version by the external method at the most more

than ten days before the expected oncoming of labor, as otherwise by the manipulations premature labor may be brought about.

The first examination will generally satisfy the attendant as to the necessity or not of his seeing the patient again before the onset of labor.

He should, universally, on going from his office, leave as accurate word as possible with regard to the probable time of his return and where he may be found if needed in haste.

When summoned to attend on a woman in labor he should take with him, or if away from home he should send a messenger at once for his "hand-bag," which should contain all instruments, drugs and appliances necessary, not only in ordinary cases, but as well such as will meet any sudden emergency which may arise.

The contents of his satchel should at least consist of a pair of forceps, (Hodge, Elliot, Simpson or Wallace,) a pair of axis traction forceps, or at least traction rods attachable to his other forceps, a pelvimeter, silk, wire and catgut for sutures, needles and holder, Sims' speculum, volcelli forceps, artery forceps, silver catheter, also gum catheter, (No. 7,) Barnes' dilators, a hypodermic syringe, morphia tablets or solution, chloroform, ether, Monsell's salt, carbolic acid or creolin, bichloride or biniodide of mercury, solution muriate cocaine, a small package of aseptic cotton or lamb's wool, a roll of iodoform or bichloride of mercury gauze, (1 to 4,000,) the latter for tamponing the uterus in event of severe hœmorrhage, and also for dressing the cord; a piece of gum tubing a yard or more in length, to be used in conducting the urine from the catheter to a vessel, in event it is needed.

With the prospect of valuable time being at his disposal, the practitioner should always have about his person a medical journal which may engage his attention with great benefit during his hours of waiting. A very busy practitioner and one of the best read physicians it has ever been my pleasure to meet, told me it was in this way that he kept himself so intimately acquainted with current medical literature.

When he arrives at the house, his first duty is to ascertain if the woman is in labor, and if so, to see that his instructions with regard to her dress, the preparation of the bed and asepsis have been carried out. Before proceding to make a vaginal examination he should see that the woman's external genitalia have been washed thoroughly with soap and water and afterwards with one of the following solutions: cupri sulphas, 1 to 100; carbolic acid, 1 to 40; creolin, 1 to 50; bichloride or biniodide mercury, 1 to 1000; he should also see that the bladder and rectum are evacuated. The condition of the patient and her environment must satisfy him as to the necessity of a vaginal injection; as a rule, at least in private practice, I think this is unnecessary. Where a vaginal injection is thought necessary, I have no hesitancy in

saying that a solution of creolin is by far the best. If, however, at any time during labor, it becomes necessary to introduce the fingers or hand into the uterus, such examination should always be preceded by a vaginal douche, with one of the solutions just indicated. His own hands should be scrupulously cleaned with soap and water, special attention being given to the nails. After this, they should be washed for several minutes in one or other of the above solutions.

He should not touch, after this cleansing process, any object before introducing his fingers into the vagina, neither should he withdraw them and again introduce them without first rinsing them in the antiseptic solution. By this examination he should verify the presentation and position, the condition of the soft parts, the dimensions of the pelvis, the force and character of the pains, and approximate the probable duration of pregnancy. The golden rule with him in practice is, in deciding after this examination upon his manner of conducting the labor, to "keep out of consideration his own time." He has no moral or professional right to adopt any course simply for his own interest. Everything done must absolutely be considered only in reference to the best interests of the mother and child.

If, in his examination, he has found everything normal, he should so express himself in the hearing of the patient. If, on the other hand, an abnormal condition is found, there is a difference of opinion among the profession as to the course to be pursued. Some say these facts should only be made known to the husband and other immediate friends. Of course, the character, the physical and mental condition of the patient must be a determining factor in the course to be pursued. My own experience has been that the cases are exceptional in which a candid statement should not be made to the patient, while at the same time, she is to have an assurance of the attendant's ability to rectify the trouble as best it can be done under the circumstances. The attendant must endeavor to retain the entire confidence of his patient, keep her assured of his sympathy in her pain, and of his earnest desire to make her suffering as light as possible. To this end he must be brave, yet careful; firm, yet tender; truthful, yet secretive; watchful and encouraging.

Again, the general reputation of the attendant in the community for veracity must be considered. Deceive a woman as to her condition and you will ever after have difficulty in convincing her of your sincerity, however honest your assertions may be. The nurse, assistants and friends, while perhaps recognizing the justice of his prevarications, will ever after fail to have implicit confidence in him. "Truth at all hazards" should be the maxim.

If the examination has shown that the woman is in actual labor, and

everything is progressing normally, he assumes the position of watchful expectancy. It will not usually be necessary for him to remain in the lying-in chamber, in fact, it is not always best that he should do so, as his continual presence may have an irritating or depressing effect upon the patient. This is a matter that must be left to the individual judgment of the practitioner in each particular case. If the patient specially requests his presence her wish should be gratified. After labor has actually set in the attendant should never go out of easy hailing distance for any length of time. Examinations as to the progress of labor should be made at intervals of an hour or two as may be thought necessary. Vaginal examinations should be as rare as possible, if at all. Before retiring from the room, no difference how reliable the nurse may be, he should see, even to the most minute thing, that everything is in readiness. His instruments and medicines should be placed where they will be in easy reach. Some place them on a stand beside the bed. I prefer to put them on a stand in an adjoining room, as their presence beside the patient has not always the most happy effect upon her imagination. Clean linen should be prepared and dried and aired for a change if necessary. A great amount of worry and fatigue at an inorportune time by a change of apparel may generally be avoided by folding the chemise and shirt up around the body of the patient, and making a soiling skirt of a folded sheet which can be pinned around the body, and which will absorb the discharges. A binder with pins should be at hand, as also a pair of scissors, a piece of tape or wrapping yarn for tying the cord, a couple of pairs of spring forceps with which to compress the cord if a hasty section become necessary, a shawl or blanket for the reception of the new-born child. Hot and cold water should be provided for, and ice, if convenient; two basins, one with antiseptic solution, another for soap and water, and several clean towels. One must be ever on his guard to not wound the feelings of the poor by asking for anything which their circumstances will not justify and which may only be found in the homes of the opulent. Crudeness indeed may be necessary, but this need not mitigate against cleanliness.

When the patient is able to do so, she should be requested to sit up or walk around the room during the first stage of labor, and sometimes this may be of very great advantage during the first part of the second stage. She should be instructed with regard to the reserving of her physical powers for the expulsive stage, and told that all pulling on hands, sheets and ropes, and labored efforts during the first stage of labor, is only an unnecessary waste of valuable energy.

If the woman is still in the first stage of labor, the os rigid, dilation slow and the pains severe, there being no positive contradiction, a hypodermic injection of morphia should be given, thereby mitigating the

pain and suffering and perhaps affording needful slumber, and at the same time relaxing the tissues of the os so that they will be more susceptible to the influences of the dilating forces. When the os is well dilated and the membranes not ruptured, they should be ruptured. This should be done with great care lest the sudden gush might bring down a loop of the cord. Delivery should never be allowed to take place without previous rupture of the membranes, lest the placenta be dragged from its attachment and hemorrhage result.

If the os is dilated or dilatable, the uterine contractions strong and productive of great suffering and the presenting part is not advancing at a commensurate speed, the powers of nature should not be relied upon too much. Over meddlesome midwifery cannot be too strongly condemned, nature should always be given a fair chance; but where she is over tardy and fails to do her full duty promptly, art should at once come energetically to her rescue. This can often be done, the operator having accurate knowledge of the presentation and position of the child and the mechanism of the labor by properly applied pressure or traction to assist flexion, rotation and descent. Sometimes this in connection with a change of the position of the woman, so that the line of force of the expelling power will be thrown in the direction of the centre of the various planes of the pelvis will give all needed assistance. If this fails to effect an advance, the forceps should be applied with proper aseptic precautions. The forceps when rationally applied, are one of "God's best gifts to woman." I know there are those upon this floor to-night, who are ever on the alert to speak disparagingly of the frequent use of the forceps. They say they scarcely ever apply them and that they believe the duty of the obstetrician is to be conservative. I myself believe in conservatism; there are comparatively few men who apply the forceps less frequently in their daily private practice in proportion to the number of deliveries than I do myself. I think there is very often a misapplication of the term conservative, especially in applying it in relation to radicalism in practice. Those who never apply the forceps are just as absurdly conservative as those who always apply them are absurdly radical. The most radical operation may be the most conservative. Or applying the term per contra, the most conservative may be the most radical operation. The conservative practitioner is the preserver. He conducts his case with an eye to the comfort and safety of his patient. His "ism" is that which will do the greatest good. He is allopathic in the highest, truest, noblest sense.

One of the most important and delicate ordinary duties of the obstetrician is the preservation of the perineum. I do not claim that rupture of the perineum can always be prevented, there are cases in which its preservation is impossible, even in the hands of the most experienced

and painstaking practitioner. I do claim, however, that the percentage may be reduced to a minimum of less than 3 per cent in multiparæ, and less than 9 per cent in primiparæ, and I am not sure but that with proper care it can by the aid of episiotomy be reduced to almost nil.

There is no special method for its preservation applicable to all cases, each case must be studied of itself, by itself and for itself.

Prof. Lusk says, "Measures to avert rupture may be classified under three headings," viz:

"1. Those designed to check the exit of the head before the fullest expansion has been secured, and to prevent expulsion during the acme of pain, when the borders of the orifice are most rigid."

"2. Measures which impart an upward movement to the head, with a view of making all unoccupied space beneath the arch of the pubes available."

"3. Measures which favor expulsion during the interval between the pains or at least after the acme has subsided."

Time will not permit to-night for me to attempt to enumerate in detail the different methods applicable to these measurers. Whatever method is adopted should embrace the following principles, viz:

1. There must not be any direct pressure on the perineum over the presenting part.

2. The presenting part must be kept under control, so that its advance can be stopped instantly if necessary.

3. There must be gradual advancement of the presenting part, and in the direction which will cause the least tension on the soft parts of the mother.

The prophylactic treatment should not be neglected. The training of the perineum, as I practice it, by annointing it with warm lanolin and making gentle traction upon it during the descent through the pelvis, will if properly and carefully done, more than remunerate for the trouble by the satisfactory results to be derived.

Episiotomy is certainly more desirable than a rupture along the raphe. Great care, however, should be exercised so as not to perform it unless rupture is positively otherwise unavoidable.

Under no circumstances should a false sense of delicacy prevent the exposure of the parts to the full view of the attendant during expulsion. This I think should be the rule of practice, as no tactile sense can ever be as efficient or give that sense of security we have from direct vision, and furthermore all of the exposure necessary need not offend the most sensitive.

Immediately after the delivery of the head the nurse should be directed to place her hand, or the attendant himself should place his

hand over the fundus uteri and make gentle pressure following it down during the contraction.

The attendant should immediately upon the delivery of the head, wipe the mucus from the eyes and out of the mouth of the child, see that there is no undue tension or pressure on the cord; during the expulsion of the body he should give particular attention to the perineum, as rupture of it very frequently happens, especially during the delivery of the shoulders.

If the presentation happen to be a breech, each part must be covered with a warm towel as it is delivered in order to avoid the reflex influence of cold in exciting attempts at respiration. The rotation of the body must be directed so as to bring the occiput to the front, and delivery hastened as may be indicated by the condition of the foetal circulation.

If the child does not immediately cry after birth, a gentle smacking on the buttocks or a little douching of cold water upon the face and thorax, is all that is necessary as a rule to excite the reflexes. If this does not suffice the mucus should be drawn from the bronchial tubes by means of the catheter and artificial respiration and alternation of hot and cold effusions or baths may be resorted to.

The cord should be tied about two inches and a half from the body of the child, thus obviating any hernial protrusions and leaving room for retying if necessary. I think the mummification of the cord is hastened and the danger of sepsis materially diminished if the contents of the cord are expressed toward the placenta before tying. After tying the first ligature, the contents of the cord should be expressed toward the placenta above the point of intended ligation. This is only intended to prevent any mortifying, spurting of blood upon the attendant or over the bed clothing when the cord is cut. The cord should always be held across the fingers and the cord cut made between the fingers to obviate the danger of cutting any other part of the child.

Some practitioners do not tie the cord until pulsation has ceased, unless there is something in the condition of mother or child to call for its immediate severance. This is good practice, but not at all necessary when the child is strong and healthy. As previously intimated, sometimes the most hasty section is necessary, in which case a pair of forceps may take the place of the ligature for the time being.

After cutting the cord the child should be laid on a shawl or blanket and handed to the nurse, never however until it is breathing properly.

The attention of the attendant should then be given to the woman. He should first note the contraction of the uterus, the presence or absence of hœmorrhage, the condition of the pulse, and in a few minutes with slight pressure over the uterus and gentle traction upon the cord

deliver the placenta. The placenta should always be twisted during its delivery, so as to gather up all portions of the membranes, a small portion of which if left in the uterus may lead to very serious if not fatal complications.

As the delivery of a retained or adherent placenta may be considered among the extraordinary duties, and more especially as time will not permit, we will not dwell further upon the third stage of labor.

The external genitalia should now be cleansed, the parts exposed and lacerations looked for. If any are found, it is scarcely necessary for me to argue at this day, that unless there is the most positive contraindication, which is very rare, they should be immediately closed by suturing. The soiled clothing should be removed and replaced with clean. A binder may or may not be placed around the woman according to the wish of the patient or the doctor. They sometimes add to the comfort of the woman, and when hœmorrhage is feared, it helps to irritate the uterus to contraction. It is a power for evil, however, if not properly applied. It should extend below the trochanters and above the umbilicus, and should only be drawn to give a gentle, firm, equable pressure over the abdomen.

An aseptic soiling cloth then being placed against the vulva, the woman should be covered up and allowed to rest quietly in bed.

I have not placed among the ordinary duties the syringing of the vagina, or of the uterus after delivery. Where the hand has not been introduced into either of the organs, especially in private practice, I do not consider it essential.

After attending to the woman attention should be given to the child. Its whole body should be well cleansed with lard or vaseline, its eyes and mouth washed with a little tepid water. I do not think the body of the child should be washed with water until the second dressing. The child should be carefully examined for "tongue tie," "imperforate anus or meatus urinarius," and for other abnormalities, and if any are found, when politic, immediate operation performed.

The cord should be dressed aseptically. For this purpose a fold of iodoform bi-chloride of mercury gauze, 1 to 4000, with an incision in the center through which the cord is to be drawn, is placed around, the cord which is then well wrapped in some antiseptic cotton or wool and a binder applied. I regard this dressing of the cord as of paramount importance, and wish especially to call attention to the fact, well authenticated, that a septic cord is not unfrequently the cause of the death or sickness of the mother or child or perhaps both.

In one hour after delivery, if the mother is in fair condition, the attendant may depart. Not without first taking the temperature and pulse of the patient; ascertaining that the uterus is well contracted and

that there is no hœmorrhage; not without interdicting the visits of friends for congratulations and to enforce quiet. The nurse should be cautioned strictly against touching the gentalia without first rendering her hands aseptic. Medicine should always be ordered to be given in the event of the oncoming of severe after pains.

At his subsequent visits, the first of which should be within 12 hours, and in no case later than 24 hours, a careful examination of both mother and child should be made, and in no case should he ever forget to satisfy himself that the woman has not retention of urine. To this end never accept the word of the patient or nurse that the urine has been passed; insist upon knowing the quantity or having it saved for inspection.

This rule cannot be too energetically impressed upon the young practitioner. Any other course will almost certainly, sooner or later, bring about an ignominious disaster, which will impress itself upon him as if by fire.

Special directions should always be given with reference to the care of the breasts and nipples so as to prevent chafing, fissures or abscess. Nurse and mother should be impressed with the fact that infants form habits very readily, and, therefore, the need of regular hours being assigned it for food and sleep. When the cord drops off, the physician should give personal attention to the umbilicus, and before finally discontinuing his visits he should note the degree of involution of the uterus. It is well to see and examine the position and size of the uterus about the fortieth day. A rule should be absolute, that under no circumstances should the woman leave her bed and room finally before the fourteenth day after delivery.

Last, but not least, having performed the work conscientiously, it is a duty to make a charge commensurate with the work performed.—*The Pittsburgh Med. Review.*

UTERINE HŒMORRHAGES.

"For acute hœmorrhage from the uterus I have found no remedy superior to ergot, though in chronic hœmorrhages the best remedy is gossypium, made into a decoction by taking three heaping teaspoonfuls to one pint of water and boiling for fifteen minutes; when cold, one-third of this is to be taken three times a day. This remedy is very useful in uterine hœmorrhage, even when due to fibroids or to cancer. If hœmorrhage be present, or there is any tendency to it, in my opinion iron only aggravates the condition. Apostoli's method of galvano-chemical cauterization is also very valuable. A very strong galvanic current is applied to the uterus with the positive pole.—*Garrigues in Post-Graduate.—Northwestern Lancet.*

SURGERY.

REPORT FROM THE CLINIC OF ROSWELL PARK, A. M., M. D.

Reported by DR. EDW. J. MEYER.

HEPATIC ABSCESS—NEPHRECTOMY.

FIRST patient is a man, 33 years of age, a native of Sweden, occupation that of a tanner.

Patient gives the following history: Up to two weeks ago has always been strong and hearty, at that time was taken suddenly with a pain in right side of abdomen, followed by severe chill, which pain and daily chill have continued up to time of admission to hospital.

The symptoms being such, for the time being he was placed in charge of the hospital physicians, who, however, suspected hepatic abscess, from the presence of pain in right side, tenderness over liver, daily chills together with a decided septic appearance; the temperature at this time being 104° F. in the afternoon, pulse varying from 120 to 160 beats per minute, respiration 22, the urine containing some albumen. An asperating needle was introduced into liver at this time, but no pus was found.

The symptoms continuing unabated, Dr. Park was called in consultation, as a result of which an operation was contemplated, consequently at the regular surgical clinic the following morning the liver was opened. Through an incision four inches in length, extending between the tenth and eleventh ribs, in the axillary line, the liver was exposed, twisted iodoform gauze being packed around the opening into the peritoneal cavity.

An asperating needle was again introduced deep into the organ and pus obtained.

At this juncture, the question arose as to the propriety of evacuating the abscess at once, or allowing time to elapse for adhesions to securely shut off the peritoneal cavity; the opening, however, had been so thoroughly packed around with the gauze, that sufficient security was insured to proceed at once.

Accordingly a groove director was worked in by side of the needle, which had perforated the abscess wall, a blunt bistoury introduced along the director, and a free incision made in liver substance, parallel to the ribs.

Immediately thick, greenish, foul-smelling pus began to well up, and

several ounces were slowly evacuated, *no irrigation* being employed; a good sized rubber tube was finally inserted, dressing applied and patient returned to bed, his condition at that time being very critical.

He rallied splendidly, however, after several days of careful nursing.

Following operation, the temperature quickly sank to normal, and has remained there, the discharge continuing profusely.

Jan. 24, 1893.—Patient returned to his home in neighboring State; is rapidly regaining strength. The drainage tube is still in abscess. (Twenty-one days since operation.)

Jan. 26, 1893.—Has returned to hospital to have tube reinserted, the opening having become so narrow as to force tube out.

Bacteriological examination of pus shows clear cultures of bacilli coli communœ.

The next case is that of a man 30 years of age, single, occupation a stone-cutter. When a young boy resided in a malarial district in the south, and for the following ten years had frequent manifestations of malaria. About eight years ago began to have symptoms of acid urine, with occasional pain in region of left kidney; this continued for two years, his condition then being made worse, as the result of following the occupation of a painter for several months. Shortly after, began to have attacks of renal colic, and later passed small calculi; can remember having a daily attack with passage of the stone for 73 consecutive days, the paroxysms lasting about forty-five minutes, the trouble being in the left kidney. A condition of polyuria existed at times, no doubt as a result of the irritation. Left side began to bulge about this time, had chills, high temperature and rapid pulse, was said to have an abscess, involving kidney and surrounding structures, also at this time passed considerable pus with urine. An operation was urged, but patient would not submit to it. This state of affairs continued for two years, the condition finally becoming so aggravated that consent was obtained to open abscess, and large quantities of pus were evacuated.

The discharge continuing after some time, Dr. Park was called July 9th; at that time he did a nephro-lithotomy, removing several calculi from pelvis of kidney, and scraped out abscess cavity.

Marked improvement followed, for several months, when trouble again became apparent; abscess again formed and broke, about an ounce of pus discharging daily, the man's condition in the meantime becoming weaker. As a last resort he entered hospital for further operative procedure, Jan. 23, 1893.

On examination, he was found to be pale, emaciated and weak, pulse rapid and soft, temperature 99.6, respiration 22; urine loaded with pus, kidney epithelum and casts, and the sinus in side discharging quantities of pus.

After several days of stimulating treatment, chloroform was administered and an oblique incision, about five inches in length, was made over region of left kidney preparatory to a nephrectomy.

The kidney proper was buried in a mass of dense cicatricial tissue from which it could be but partially released; a silk and also an elastic ligature were then passed around pedicle, which was about two inches in diameter, and kidney structure beyond ligatures cut away.

The elastic tubing was now removed and the renal artery caught with forceps and separately ligated, after which the stump was cauterized by means of a Paquelin cautery.

During the various manipulations, a rent was made in the peritoneum, exposing the colon, but after disinfecting the opening with peroxide of hydrogen, it was closed by a continuous catgut suture. Left protruding from the wound were the ends of the silk ligature, in order that the pedicle could be brought into view, in case of secondary hœmorrhage. Zinc gauze was used to pack the wound, and sublimate dressing applied.

Great relief has followed the operation, his temperature has ceased to fluctuate and is normal, pulse and respiration are much improved, albumen is no longer traceable in urine, his strength is being slowly regained, and he is on the high road to recovery.

January 24, 1893. Silk ligature removed from pedicle, wound filling in rapidly.

Continues to improve in health.

Naked eye appearance of specimen: On section, multiple abscesses through organ, with destruction of most of kidney substance.

No. 510 Delaware Avenue, Buffalo, N. Y.

A CASE OF CONSERVATIVE SURGERY.

A. B. BRIGGS, M. D.

THE patient, A. C., a boy about twelve years of age, was brought to my office one evening some three months ago, with the story that while playing with a fulminate cap, he conceived the idea that it would be good fun to deposit it in the kitchen stove, which idea he immediately put into execution. The results were as follows: The end of the thumb of the right hand was blown off to the base of the nail, the second phalanx being shattered and about one-third of its tip gone, the index finger had been used in much the same way, all of the soft parts having been blown off to a little below the base of the finger nail, the third phalanx being left bare for about two-thirds its length, but was not splintered, the soft parts on the palmer surface over the first phalanx were carried away.

The middle finger had been used rather more severely, all of the soft parts had been torn down almost to the articulation of the second and third phalanges, the bone being very badly shattered, the soft parts of the palmar side of the finger were gone to the articulation of the second with the third phalanges, and very badly shredded.

The ring finger had come out of the explosion in rather better condition, the fleshy part of the tip having been torn from the bone about half way across, but the bone was not injured, the cap was easily replaced over the phalanx, and made rather a nice looking finger.

The palm of the hand was torn across over the metacarpal bones just below their articulation with the phalanges, the flesh being badly lacerated and the wound filled with small pieces of bone, finger nails, ashes, etc. The flesh over the whole palmer surface of the hand was black and quite badly burned; the ends of the index and middle fingers and of the thumb presented what might be called a tasseled appearance, the tissues hanging in shreds, very black and in places burned. It had been three hours since the accident occurred and already the hand was considerably swollen.

At first examination it looked as if it would be necessary to amputate the thumb at the articulation of the first and second phalanx, the index finger at the second and third, and the middle finger at the articulation of the first and second phalanges.

Upon further deliberation, however, it was decided to try the antiseptic treatment and if the hand could be saved, to try and save as much of the thumb and fingers as possible. Accordingly the soft parts were slipped down as much as could be done easily, and the bone cut off with bone forceps, all shreds, lacerated and burned tissues were carefully trimmed off, the parts thoroughly cleansed with warm carbolized water, all hœmorrhage checked with hot water, the wound in the hand cleansed and all foreign substances removed with care, after which all lacerated parts were dusted with iodoform, covered with iodoform cotton, bichloride gauze, and a bandage.

The next day the dressing on fingers and thumb was removed, as there had been considerable oozing of blood, and the same form of dressing re-applied. There had been but very little pain and the swelling had not increased. On the third day the dressings were all removed, there had been but little pain, swelling less, the wound in the hand looked well, but the fingers and thumb showed that the burnt tissues were much more extensive than had at first been supposed. It was evident that much tissue would slough and the iodoform dressing was re-applied. Two days later upon dressing, the fingers and thumb had discharged very freely, but the wound in the hand was doing well. After cleansing with hot carbolized water, peroxide of hydrogen, Mer-

chands, was applied full strength, and a dressing of iodoform cotton and gauze applied.

From that time on, the wound in the hand gave no trouble, with the exception that some ten days afterwards a small abscess formed near the metacarpo-phalangeal articulation of the middle finger, which when opened discharged a small piece of finger nail.

The subsequent treatment consisted of careful strapping of the tissues so as to get the best shape possible in the fingers and thumb with the iodoform dressing, and whenever there was a disposition to excessive granulations with increased suppuration and an inclination to oozing of blood, the peroxide of Hydrogen was used freely, which in every instance had the desired effect of checking the granulations, etc.

The results have been very gratifying to the physician and to all parties interested, and we have the satisfaction of knowing that quite a considerable length has been saved in the thumb and two fingers at least, and I feel that in a great measure the results were due to the thorough antiseptic treatment that was pursued.

TREATMENT OF CARBUNCLE BY HYPODERMIC INJECTIONS OF CARBOLIC ACID.

By CHARLES O'LEARY, M. D.

SINCE August, 1881, I have treated carbuncle with hypodermic injections of carbolic acid into the tissue surounding carbuncle. In that year and the year previous, I had two cases of carbuncle of the utmost severity. They were the largest I had ever seen either in private or hospital practice. They were, as one consultant remarked, entitled to the prestige of being patriarchs of carbuncle. The patients had both enormous necks, affording rich pasture for bacilli. Both were treated on the standard methods, vigorous and heroic, and mildly with poultice as recommended by Paget; both were fatal. Shortly after, a man from Centredale, in this State, came to me with incipient carbuncle on the neck, just resembling one of the cases that proved fatal, as it first came into my hands. I knew that Dr. Post, of New York, had aborted a case of carbuncle by piercing it with red hot wires, so he told me when speaking to him on this subject. I then resolved, instead of actual cautery, to try carbolic acid in full strength. So I submitted to the patient the treatment I should follow, and left it to his choice to submit or not to such treatment.

He was willing to undergo treatment.

I injected by hypodermic syringe the liquefied acid at three points

along edge of carbuncle that was on the neck. He called three days subsequently, and I observed the carbuncle stationary and aborted where the acid had been injected. I then injected at six points—equal amount at each point as I had in the three points at first experiment. He returned in three days. The carbuncle was entirely arrested and what had been the carbuncle was a hard dead core, without any sensation or circulation. Subsequently he came, when I dissected it out as a dry fibrous mummified mass. The cavity left, healed quickly by granulation.

Since that time I have treated all carbuncles in the same way with invariable success. I am confident, that had I treated one of the severer cases referred to that came to me in the incipient stage, I would have saved the man's life.

It might be asked, what is the strength and what the amount of acid I use. In strength I use the liquefied acid, full strength. As to quantity I was at first guarded, and used only the hypodermic syringe full, in all. I subsequently increased this to double the quantity, and have recently, in a patient with diabetes, where carbuncle occurred twice in the months of May and November used treble the quantity. That is, I have taken six points on the outside limit of the carbuncle, and injected one syringe full into each two points, three syringe fulls at once.

I have seen no poisonous effects in any way, and I had to repeat this no less than four times.

I believe if the same amount of carbolic acid sufficiently diluted as to cause no injury by contact with the tissues, were taken into the stomach, the toxic effects would be very dangerous if not fatal.

If other agents are more dangerous in their effects by being administered hypodermically, such as morphine, than if taken by the stomach, I have experience that it is not so with carbolic acid.

No. 7 Jackson Street.

THE BUSY PHYSICIAN.

Who looks so deep into the very depths of the human soul as the physician—I mean the physician who can see, observe and is familiar with the mental as well as physical make-up of man.

No man has to carry so much ready knowledge as the doctor. He must decide questions involving life and death in a minute. The lawyer has "briefs between his briefs," when he can look up his case and his authorities and prepare himself for the hearing. The minister can choose his time for preparation and take his week to get ready for Sunday. The druggist can look up his questionable points in the dispensary or pharmacopœa behind the prescription counter and let the patient wait for the medicine until he gets time to prepare it properly. So with the chemist. He has ample time to consult authorities. In fact, every scientist—save the physician—has time to look up what he needs as he goes. Not so the doctor. He must be ready to tie an artery; to perform tracheotomy, etc. on short notice, and if he does not decide right, he is scorned by a thoughtless multitude and abused, and talked of, to say the least, disrespectfully.

MEDICAL JURISPRUDENCE.

MEDICAL LEGISLATION IN VARIOUS COUNTRIES.

Compiled from official documents and offered for serious consideration to Practitioners in Medicine, Surgery, Dentistry and Pharmacy, and National and State Legislators, by

J. FREDERICK HALLER, A. B., M. D.,
Member Committee on Legislation, R. I. Medical Society.

I.

MEDICAL LAWS OF ENGLAND.

Extracts from The Medical Register, Published under the direction of the General Council of Medical Education and Registration in the United Kingdom, 1891. London.

REGISTRARS AND OFFICES FOR REGISTRATION.

W. J. C. Miller, B. A., Registrar for England.	Medical Council Office, 299, Oxford Street, London W.
James Robertson, Registrar of The Branch Council for Scotland.	1, George Square, Edinburgh.
R. L. Hend, M. D., Registrar of The Branch Council for Ireland.	35, Dawson Street, Dublin.

REGISTRATION FEES.

		£.	s.	d.
(*a*)	For Persons qualified after January 1, 1859,	5	0	0
(*b*)	" " " before January 1, 1859,	2	0	0
(*c*)	For each additional Qualification,	0	5	0
(*d*)	For Restoration to the Medical Register,	0	5	0

THE MEDICAL ACT, 1858.

An Act to regulate the Qualifications of Practitioners in Medicine and Surgery.

Whereas it is expedient that Persons requiring Medical Aid should be enabled to distinguish qualified from unqualified Practitioners: Be it therefore enacted by the Queen's most Excellent Majesty, by and with the Advice and Consent of the Lords Spiritual and Temporal, and

Commons, in this present Parliament assembled, and by the Authority of the same, as follows:

I. This Act may for all Purposes be cited as "The Medical Act."

II. This Act shall commence and take effect from the First Day of *October* One thousand eight hundred and fifty-eight.

III. A Council which shall be styled "The General Council of Medical Education and Registration of the United Kingdom," herein-after referred to as the General Council, shall be established, and Branch Councils for *England*, *Scotland* and *Ireland* respectively formed thereout as herein-after mentioned.

[IV. The General Council shall consist of One Person chosen from Time to Time by each of the following Bodies; (that is to say,)

The Royal College of Physicians:
The Royal College of Surgeons of *England:*
The Apothecaries' Society of *London:*
The University of *Oxford:*
The University of *Cambridge:*
The University of *Durham:*
The University of *London:*
The College of Physicians of *Edinburgh:*
The College of Surgeons of *Edinburgh:*
The Faculty of Physicians and Surgeons of *Glasgow:*

One Person chosen from Time to Time by the University of *Edinburgh* and the Two Universities of *Aberdeen* collectively.

One Person chosen from Time to Time by the University of *Glasgow* and the University of *Saint Andrew's* collectively:

One Person chosen from Time to Time by each of the following Bodies:

The King and Queen's College of Physicians in *Ireland*:
The Royal College of Surgeons in *Ireland;*
The Apothecaries' Hall of *Ireland:*
The University of *Dublin:*
The Queen's University in *Ireland:*

And Six Persons to be nominated by Her Majesty with the Advice of Her Privy Council, Four of whom shall be appointed for *England*, One for *Scotland*, and One for *Ireland;* and of a President, to be elected by the General Council.]

VI. The Members chosen by the Medical Corporations and Universities of *England*, *Scotland* and *Ireland* respectively, and the Members nominated by Her Majesty, with the Advice of Her Privy Council, for such Parts respectively of the United Kingdom, shall be the Branch Councils for such Parts respectively of the United Kingdom, to which Branch Councils shall be delegated such of the Powers and Duties vested

in the Council as the Council may see fit other than the Power to make Representations to Her Majesty in Council as herein-after mentioned: The President shall be a Member of all the Branch Councils.

VII. Members of the General Council representing the Medical Corporations must be qualified to be registered under this Act.

VIII. The Members of the General Council shall be chosen and nominated for a Term not exceeding Five Years, and shall be capable of Re-appointment, and any Member may at any Time resign his Appointment by Letter addressed to the President of the said Council, and upon the Death or Resignation of any Member of the said Council, some other Person shall be constituted a Member of the said Council in his Place in manner herein-before provided; but it shall be lawful for the Council during such Vacancy to exercise the Powers herein-after mentioned.

IX. Time and Place of Meeting of the General Council. Eight necessary for a Quorum. President has, besides his vote as a member, the casting vote where there is an equality of votes.

X. Appointment of Registrars and other Officers. Are appointed at the Pleasure of the Council and can be removed at any time. Their compensation is also fixed by the Council.

XI. Appointment of Registrars and other Officers by Branch Councils, is done in the same manner.

XII. Members of the Councils are paid such Fees for Attendance and such reasonable Traveling Expenses as shall from Time to Time be allowed by the General Council and approved by the Commissioners of Her Majesty's Treasury.

XIII. Expenses of the Council are defrayed by the Fees received.

XIV. It is the Duty of the Registrars to keep their respective Registers correct in accordance with the Provisions of the Act, and the Orders and Regulations of the General Council, and to erase the Names of all registered Persons who shall have died.

XV. Registration of Persons qualified can be done through mail by presenting the required documents.

XVI. Council to make Orders for regulating Registers to be kept.

XVII. Persons who were practising in England before 1st of August, 1815, were entitled to be registered without paying. (See above.)

XVIII. Council may require Information as to Course of Study, etc., required for obtaining Qualifications at the several seats of learning.

XIX. Colleges may unite in conducting Examinations and only one College need be empowered to issue licenses.

XX. Defects in the Course of Study or Examination of any College or Body may be represented by General Council to Privy Council.

XXI. Privy Council may suspend the Right of Registration in re-

spect of Qualifications granted by College, &c., in default, but may be revoked if such College improves its course.

XXIII. Privy Council may prohibit Attempts to impose Restriction as to any Theory of Medicine or Surgery by Bodies entitled to grant Certificates.

XXIV. As to the making and Authentication of Orders, if signed by any three members of the Privy Council, they shall be received as Evidence in all Courts without question.

XXV. As to Registration by Branch Registrars, the same procedure is followed as of the General Council except that report of Registration is made immediately to the General Council.

XXVI. Evidence of Qualification to be given before Registration.

XXVII. The Registrar of the General Council shall in every Year caused to be printed, published, and sold, under the Direction of such Council, a correct Register of the Names in alphabetical Order according to the Surnames, with the respective Residences, and Medical Titles, Diplomas, and Qualifications conferred by any Corporation or University, or by Doctorate of the Archbishop of *Canterbury*, with the Dates thereof, of all Persons appearing on the General Register as existing on the First Day of *January* in every Year; and such Register shall be called "The Medical Register;" and a Copy of the Medical Register for the Time being, purporting to be so printed and published as aforesaid, shall be Evidence in all Courts and before all Justices of the Peace and others that the Persons therein specified are registered according to the Provisions of this Act; and the Absence of the Name of any Person from such Copy shall be Evidence, until the contrary be made to appear, that such Person is not registered according to the Provisions of this Act: Provided always, that in the Case of any Person whose Name does not appear in such Copy, a certified Copy, under the Hand of the Registrar of the General Council or of any Branch Council, of the Entry of the Name of such Person on the General or Local Register shall be Evidence that such Person is registered under the Provisions of this Act.

XXVIII. Names of Members struck off from List of College, etc., to be signified to General Council.

XXIX. If any registered Medical Practitioner shall be convicted in *England* or *Ireland* of any Felony or Misdemeanor, or in *Scotland* of any Crime or Offence, or shall after due Inquiry be judged by the General Council to have been guilty of infamous Conduct in any professional respect, the General Council may, if they see fit, direct the Registrar to erase the Name of such Medical Practitioner from theRegister.

XXX. Registered Persons may have subsequent Qualifications inserted in the Register.

XXXI. Every Person registered under this Act shall be entitled according to his Qualification or Qualifications to practise Medicine or Surgery, or Medicine and Surgery, as the Case may be, in any Part of Her Majesty's Dominions, and to demand and recover in any Court of Law with full Costs of Suit, reasonable Charges for professional Aid, Advice, and Visits, and the Cost of any Medicines or other Medical or Surgical Appliances rendered or supplied by him to his Patients.

XXXII. After the First Day of *July*, One thousand eight hundred and fifty-nine, no Persons shall be entitled to recover any Charge in any Court of Law for any Medical or Surgical Advice, Attendance, or for the Performance of any Operation, or for any Medicine which he shall have both prescribed and supplied, unless he shall prove upon the Trial that he is registered under this Act.

XXXIII. Poor Law Medical Officers not disqualified if registered within Six months of passing of Act.

XXXIV. After the First Day of *July*, One thousand eight hundred and fifty-nine, the Words "legally qualified Medical Practitioner" or "duly qualified Medical Practitioner," or any Words importing a Person recognized by Law as a Medical Practitioner or Member of the Medical Profession, when used in any Act of Parliment, shall be construed to mean a Person registered under this Act.

XXXV. Every Person who shall be registered under the Provisions of this Act shall be exempt, if he shall so desire, from serving on all Juries and Inquests whatsoever, and from serving all Corporate, Parochial, Ward, Hundred, and Township Offices, and from serving in the Militia, and the Name of such Person shall not be returned in any List of Persons liable to serve in the Militia, or in any such Office as aforesaid.

XXXVI. After the First Day of *July* One thousand eight hundred and fifty-nine, no Person shall hold any Appointment as a Physician, Surgeon, or other Medical Officer either in the Military or Naval Service or in Emigrant or other Vessels, or in any Hospital, Infirmary, Dispensary, or Lying-in Hospital, not supported wholly by voluntary Contributions, or in any Lunatic Asylum, Gaol, Penitentiary, House of Correction, House of Industry, Parochial or Union Work-house or Poor-house, Parish Union, or other public Establishment, Body, or Institution, or to any Friendly or other Society for affording mutual Relief in Sickness, Infirmity, or old Age, or as a Medical Officer of Health, unless he be registered under this Act.

XXXVII. No Certificate to be valid unless Person signing be registered.

XXXVIII. Any Registrar who shall wilfully make or cause to be made any Falsification in any Matters relating to the Register shall be

deemed guilty of Misdemeanor in *England* or *Ireland*, and in *Scotland* of a Crime or Offence punishable by Fine or Imprisonment, and shall, on Conviction thereof, be imprisoned for any Term not exceeding Twelve Months.

XXXIX. If any Person shall wilfully procure or attempt to procure himself to be registered under this Act, by making or producing or causing to be made or produced any false or fraudulent Representation or Declaration, either verbally or in Writing, every such Person so offending, and every Person aiding and assisting him therein, shall be deemed guilty of a Misdemeanor in *England* and *Ireland*, and in *Scotland* of a Crime or Offence punishable by Fine or Imprisonment, and shall, on Conviction thereof, be sentenced to be imprisoned for any Term not exceeding Twelve Months.

XL. Any Person who shall wilfully and falsely pretend to be or take or use the Name or Title of a Physician, Doctor of Medicine, Licentiate in Medicine and Surgery, Bachelor of Medicine, Surgeon, General Practitioner or Apothecary, or any Name, Title, Addition, or Description implying that he is registered under this Act, or that he is recognized by Law as a Physician, or Surgeon, or Licentiate in Medicine and Surgery, or a Practitioner in Medicine, or an Apothecary, shall, upon a summary Conviction for any such Offence, pay a Sum not exceeding Twenty Pounds.

XLI. Any Penalty to which under this Act any Person is liable on summary Conviction of any Offence may be recovered as follows: in *England*, in manner directed by the Act of the Session holden in the Eleventh and Twelfth Years of Her Majesty, Chapter Forty-three, and in *Ireland* in manner directed by "The Petty Sessions (*Ireland*) Act, 1851," or any other Act for the Time being in force in *England* and *Ireland* respectively for the like Purposes; and any such Penalty may in *Scotland* be recovered by the Procurator Fiscal of the County, or by any other Person before the Sheriff or Two Justices, who may proceed in a summary Way and grant Warrant for bringing the Party complained against before him or them, or issue an Order requiring such Party to appear on a Day and at a Time and Place to be named in such Order, and every such Order shall be served on the Party by delivering to him in Person or by leaving at his usual Place of Abode a Copy of such Order and of the Complaint whereupon the same has proceeded, and upon the Appearance or Default to appear of the Party, it shall be lawful for the Sheriff or Justices to proceed to the hearing of the Complaint, and upon Proof on Oath or Confession of the Offence, the Sheriff or Justices shall, without any written Pleadings or Record of Evidence, commit the Offender and adjudge him to pay the Penalty named as well as such Expenses as the Sheriff or Justices shall think fit, and failing

Payment shall grant Warrant for Recovery thereof by Poinding and Imprisonment, such Imprisonment to be for such Period as the Discretion of the Sheriff or Justices may direct, not exceeding Three Calendar Months, and to cease on Payment of the Penalty and Expenses.

XLII. Any Sum or Sums of Money arising from Conviction and Recovery of Penalties as aforesaid shall be paid to the Treasurer of the General Council.

XLIII. Monies received by Treasurer, shall be applied for Expenses and of the Execution of this Act.

XLIV. Accounts to be published in March each Year and laid before Parliament.

XLV. Notice of Death of Medical Practitioners to be given by Registrars.

XLVI. Persons practising in the Colonies and elsewhere, and Students can be exempted, if General Council sees fit, from any Regulation in this Act.

XLVIII. Her Majesty may grant Power to College of Surgeons to institute Examinations, etc., for Dentist.

L. The Faculty at Glasgow may be amalgamated.

LIV. The General Council shall cause to be published under their Direction a Book containing a List of Medicines and Compounds, and the Manner of preparing them, together with the true Weights and Measures by which they are to be prepared and mixed, and containing such other Matter and Things relating thereto as the General Council shall see fit, to be called "The British Pharmacopœia;" and the General Council shall cause to be altered, amended, and republished such Pharmacopœia as often as they shall deem it necessary.

LV. Nothing in this Act contained shall extend or be construed to extend to prejudice or in any way to affect the lawful Occupation, Trade, or Business of Chemists and Druggists and Dentists, or the Rights, Privileges, or Employment of duly licensed Apothecaries in *Ireland*, so far as the same extend to selling, compounding, or dispensing Medicines.

LVI. Nothing in the said Act contained shall prevent any Person, not a British Subject, who shall have obtained from any Foreign University a Degree or Diploma of a Doctor in Medicine, and who shall have passed the regular Examinations entitling him to practise Medicine in his own Country, from being and acting as the Resident Physician or Medical Officer of any Hospital established exclusively for the Relief of Foreigners in Sickness: Provided always that such Person is engaged in no Medical Practice except as such Resident Physician or Medical Officer.

In 1859 and 1860 this Act was slightly amended, chiefly its orthography.

* * *

In 1862 the "*General Council of Medical Education of the United Kingdom*" was incorporated. The exclusive right of printing Pharmacopœa and selling the same was vested in Council at the same time.

* * *

In 1868 the powers and privileges of the Medical Act as amended, was extended to "all of Her Majesty's Possessions," where Colonial Legislatures were in existence.

* * *

In 1874 an Amendment Act was passed to the Apothecaries Act of King George the Third.

This Amendment conferred upon the Apothecaries Society the same powers to regulate the Pharmaceutical Profession in the United Kingdom, as were granted to the General Council pertaining to the Medical and Dental Professions and their regulation by the Act of 1858 and subsequent years.

* * *

In the Act of 1875, pertaining to the rights of the College of Surgeons of England, women were admitted to the examination.

* * *

In amending the Medical Act in 1876 "all persons were admitted to registration without distinction of sex."

In 1878 the Dentists Act was passed.

By this Act Dentists were admitted to registration upon showing satisfactory qualifications to the General Council, protected and upheld in about the same way, and similar penalties were fixed as for Medical Practitioners.

Foreign diplomas did not debar persons from being registered in certain instances. Regular instruction and examination in Dentistry at Medical Colleges was also instituted together with the granting of certain degrees. (All this after the United States had taken the initiatory step. Ed.)

* * *

THE MEDICAL ACT OF 1886.

In 1886 the *Medical Act* of 1858 was thoroughly revised as follows:

2. No person shall be registered after this date unless he has passed the examination mentioned in this Act.
3. Qualifying examinations may be held in medicine, surgery and midwifery by:

(a) Any University in the United Kingdom, legally qualified to grant such diplomas in medicine and surgery; or
(b) Any combination of two or more medical corporations may hold joint examinations, but one at least, must possess legal rights to grant such diplomas.

The standard of proficiency required from candidates at the said qualifying examinations shall be such as sufficiently to guarantee the possession of the knowledge and skill requisite for the efficient practice of medicine, surgery, and midwifery; and it shall be the duty of the General Council to secure the maintenance of such standard of proficiency as aforesaid; and for that purpose such number of inspectors as may be determined by the General Council shall be appointed by the General Council, and shall attend, as the General Council may direct, at all or any of the qualifying examinations held by any of the bodies aforesaid.

Inspectors of examinations appointed under this section shall not interfere with the conduct of any examination, but it shall be their duty to report to the General Council their opinion as to the sufficiency or insufficiency of every examination which they attend, and any other matters in relation to such examination which the General Council may require them to report; and the General Council shall forward a copy of every such report to the body or to each of the bodies which held the examination in respect to which the said report was made, and shall also forward a copy of such report, together with any observations thereon made by the said body or bodies, to the Privy Council.

These inspectors are paid salaries by the Council.

If at any time it appears to the General Council that the standard of proficiency in medicine, surgery, and midwifery, or in any of those subjects or any branch thereof, required from candidates at the qualifying examinations held by any of the bodies for the time being holding such examinations, is insufficient, the General Council shall make a representation to that effect to the Privy Council, and the Privy Council, if they think fit, after considering such representation, and also any objections thereto made by any body or bodies to which such representation relates, may by order declare that the examinations of any such body or bodies shall not be deemed to be qualifying examinations for the purpose of registration under the Medical Acts.

During the continuance of any such order the examinations held by the

body or bodies to which it relates shall not be deemed qualifying examinations under this Act, and any diploma granted to persons on passing such examinations shall not entitle such persons to be registered under the Medical Acts.

Effect of Registration.

6. On and after the appointed day, a registered medical practitioner shall, save as in this Act mentioned, be entitled to practise medicine, surgery, and midwifery in the United Kingdom, and (subject to any local law) in any other part of Her Majesty's dominions, and to recover in due course of law in respect of such practice any expenses, charges in respect of medicaments or other appliances, or any fees to which he may be entitled.

Constitution of General Council.

7. After the passing of this Act the General Council shall consist of the following members, that is to say:—

Five persons nominated from time to time by Her Majesty, with the advice of Her Privy Council, three of whom shall be nominated for England, one for Scotland, and one for Ireland:

One person chosen from time to time by each of the following bodies:—

The Royal College of Physicians of London;
The Royal College of Surgeons of England;
The Apothecaries Society of London;
The University of Oxford;
The University of Cambridge;
The University of London;
The University of Durham;
The Victoria University, Manchester;
The Royal College of Physicians of Edinburgh;
The Royal College of Surgeons of Edinburgh;
The Faculty of Physicians and Surgeons of Glasgow;
The University of Edinburgh;
The University of Glasgow;
The University of Aberdeen;
The University of St. Andrew's;
The King's and Queen's College of Physicians in Ireland;
The Royal College of Surgeons in Ireland;
The Apothecaries Hall of Ireland;
The University of Dublin;
The Royal University of Ireland;

Three persons elected from time to time by the registered medical practitioners resident in England:

One person elected from time to time by the registered medical practitioners resident in Scotland:

One person elected from time to time by the registered medical practitioners resident in Ireland.

(1.) The members of the General Council representing the registered medical practitioners resident in the several parts of the United Kingdom shall themselves be registered medical practitioners; they shall be elected to hold office for the term of five years, and shall be capable of re-election, and any of them may at any time resign his office by letter addressed to the president of the General Council, and upon the death or resignation of any one of them, some other person shall be elected in his place; but the proceedings of the General Council shall not be questioned on account of a vacancy or vacancies among the direct representatives.

(2.) Each direct representative shall be a member of the branch council for the part of the United Kingdom in which he is elected; he shall also be entitled to fees for attendance and travelling expenses to the same extent as other members of the General Council are entitled to the same.

(a.) The nomination of members shall be in writing, and the nomination paper of each candidate shall be signed by not fewer than twelve registered medical practitioners; and

(b.) The election shall be conducted by voting papers, and it shall be the duty of the branch council in any part of the United Kingdom in which an election is to be held, to cause a voting paper to be forwarded by post to each registered medical practitioner resident in that part at his registered address, but the election shall not be rendered void by reason of the omission of the branch council to cause such voting paper to be forwarded in any particular case or cases, and any registered medical practitioner to whom a voting paper has been sent in pursuance of this Act may on application to the registrar of the said branch council obtain one from him; and

(c.) Any registered medical practitioner entitled to vote at such election may vote for as many candidates as there are representatives to be elected.

(7.) The expenses attending the election are borne by the Council.

Elections are held in November and members enter upon their term of office the first of January.

General Council may petition the Privy Council to grant privileges to any University or body, capable of granting diplomas to do so. If the council should find that the increase of registered practitioners in any

section entitle them to return an additional representative to the council they shall recommend the same to the Privy Council. If any University or body has diminished in importance so much as not to be entitled to the privilege of granting medical diplomas, the council may make suitable recommendations to the Privy Council that such body be denied their representative in the council and other licensing rights.

(2.) The Privy Council, before considering such representation, shall cause the same to be laid before both Houses of Parliament.

(3.) If either House of Parliament, within forty days (exclusive of any period of adjournment for more than one week) next after any such representation has been laid before such House, present an address to Her Majesty declaring that such representation or any part thereof ought not to be carried into effect, no further proceedings shall be taken in respect of the representation in regard to which such address has been presented, but if no such address is presented by either House of Parliament within such forty days as aforesaid, the Privy Council may, if they think fit, report to Her Majesty that it is expedient to give effect to such representations, and it shall be lawful for Her Majesty by Order in Council to give effect to the same, and any Order in Council so made shall be of the same validity as if it had been enacted in this Act.

11. Registration of colonial practitioners with recognized diplomas (diplomas granted by recognized Medical Colleges) is provided for in about the same manner.

12. On and after the said prescribed day when a person shows to the satisfaction of the registrar of the General Council that he holds some recognized foreign medical diploma or diplomas (as hereinafter defined) granted in a foreign country to which this Act applies, and that he is of good character, and that he is by law entitled to practise medicine, surgery and midwifery in such foreign country, he shall, on application to the said registrar, and on payment of such fee not exceeding five pounds as the General Council may from time to time determine, be entitled, without examination in the United Kingdom, to be registered as a foreign practitioner in the medical register.

Provided that he proves to the satisfaction of the registrar any of the following circumstances:—

(1.) That he is not a British subject; or

(2.) That, being a British subject, the said diploma or diplomas was or were granted to him at a time when he was not domiciled in the United Kingdom, or in the course of a period of not less than five years during the whole of which he resided out of the United Kingdom; or

(3.) That, being a British subject, he was practising medicine or surgery, or a branch of medicine or surgery, in the United

Kingdom on the said prescribed day, and that he has continuously practised the same in the United Kingdom or elsewhere for a period of not less than ten years immediately preceding the said prescribed day.

13.—(1.) The medical diploma or diplomas granted in a British possession or foreign country to which this Act applies, shall be such medical diploma or diplomas as may be recognised for the time being by the General Council as furnishing a sufficient guarantee of the possession of the requisite knowledge and skill for the efficient practice of medicine, surgery and midwifery.

(2.) Where the General Council have refused to recognize as aforesaid any colonial or foreign medical diploma, the Privy Council, on application being made to them, may, if they think fit, after considering such application, and after communication with the General Council, order the General Council to recognize the said diploma, and such order shall be duly obeyed.

(4.) A person may, if so entitled under this Act, be registered both as a colonial and a foreign practitioner.

14. Separate lists of colonial and foreign practitioners in medical register to be kept.

15. Medical titles of colonial and foreign practitioners allowed to be added to their names after such registration.

16. Registration of foreign degrees held by registered medical practitioners allowed.

17. Her Majesty has the power in Council to define colonies and foreign countries to which this part of the Act applies.

MISCELLANEOUS PROVISIONS.

Default of General Council to fulfill its duty to be dealt with by the Privy Council.

21. Registration of diploma in sanitary science, public health or state medicine may be registered as such, if found satisfactory by council.

22. (1.) All powers vested in the Privy Council by the Medical Acts or this Act may be exercised by any two or more of the Lords and others of her Majesty's most honourable Privy Council.

(2.) Any act of the Privy Council under the Medical Acts or this Act shall be sufficiently signified by an instrument signed by the Clerk of the Council, and every order and act signified by an instrument purporting to be signed by the Clerk of the Council shall be deemed to have been duly made and done by the Privy Council, and every instrument so signed shall be received in evidence in all courts and proceedings without proof of the authority or signature of the Clerk of the Council, or other proof.

Definitions.

27. In this Act, unless the context otherwise requires,—The expression "part of the United Kingdom" means, according to circumstances, England, Scotland, or Ireland:

The expression "British possession" means any part of Her Majesty's dominions exclusive of the United Kingdom, but inclusive of the Isle of Man and the Channel Islands; and where parts of such dominions are under both a central and a local legislature, all parts under one central legislature are for the purposes of this definition deemed to be one British possession:

The expression "local law" means an Act or Ordinance passed by the legislature of a British possession:

The expression "the appointed day" means the first of June one thousand eight hundred and eighty-seven, or such other day in June one thousand eight hundred and eighty-seven as may be appointed by the Privy Council:

The expression "medical corporation" means any body in the United Kingdom, other than a university, for the time being competent to grant a diploma or diplomas conferring on the holder thereof, if he has passed a qualifying examination, the right of registration under the Medical Acts:

The expression "registered medical practitioner" means any person for the time being registered under the Medical Acts:

The word "diploma" means any diploma, degree, fellowship, membership, license authority to practise, letters testimonial, certificate, or other status or document granted by any university, corporation, college, or other body, or by any departments of or persons acting under the authority of the government of any country or place within or without Her Majesty's dominions:

The expression "medical diploma" means a diploma granted in respect of medicine, surgery, and midwifery, or any of them, or any branch of medicine or surgery:

The word "person" includes a body of persons, corporate or not corporate:

The expression "the Medical Acts" means the Medical Act, 1858, and any Acts amending the same, passed before the passing of this Act.

Johnnie—"Tom, your mother says you are taking Cod Liver Oil. "What are you taking it for?"

Tom—"Medicine! did you think I was taking it for fun?"

Is not a four-year college course an expensive way of teaching a boy to play football?—*Buffalo Express.*

PHARMACY.

In Charge of WILLIAM E. CATES, PH. G., Secretary R. I. Pharmaceutical Association.

THE annual meeting of the Rhode Island Pharmaceutical Association was held in Providence, Wednesday, January 11, 1893. The meeting was called to order at 11 o'clock A. M., President James H. Dudley, of Woonsocket, occupying the chair. The secretary read the record of the semi-annual meeting, and it was approved. Mr. O'Hare, of the special committee of ten, said that before the next meeting in July, the matter for which the committee was appointed would be brought before the Legislature. The committee on legislation, Mr. James O'Hare chairman, reported.

He said that an amendment to the proposed new Pharmacy Law had been prepared, providing for the appointment of the State Board of Pharmacy from a list of candidates nominated by the Rhode Island Pharmaceutical Association, and the committee would endeavor to have the same adopted before the bill became a law. The bill was now in the hands of the Senate, having passed the House of Representatives at the last session. He said that it was the desire of the association to have the best men available on the board. At this point, the President stated that the recent appointment by the Governor of a physician on the Board of Pharmacy was due to strong influence which was brought to bear upon him to appoint a practising physician on the board.

The appointee, Dr. McCaw, was a pharmacist as well as a physician. An informal discussion followed as to the legality of the appointment. This brought out the fact that as far as Dr. McCaw was concerned there was no dissatisfaction and it was agreed that he was well qualified to serve as a member of the board, but there was another member of the board, who, although keeping up his registration, had not, for several years been actively engaged in the profession, and they thought the spirit of the law was being violated in not having all members of the Board of Pharmacy engaged in the active practice of pharmacy.

In relation to the proposed class in botany, the committee reported that they hoped to be able in a few weeks to announce a series of lectures at Brown University, and that the expense would be very small.

The report of the delegates to the late meeting of the American Pharmaceutical Association at the White Mountains was read, accepted, and placed on file. The report gave a complete account of the business transacted at that meeting, also an outline of the many pleasures enjoyed on the trip.

The Treasurer's report showed that the receipts of the year had been $62.30, and the expenditures, $42.11, leaving a balance of $20.19. The report was referred to the Executive Committee.

The report of the Secretary showed an active membership of 91 and an honorary membership of 7. During the year two members have been admitted. The society has lost by death during the year three of its members, William B. Blanding and E. A. Calder of Providence and Prof. P. W. Bedford of New York, an honorary member.

The report was also referred to the Executive Committee.

The association then proceeded to the election of officers. Under the new amendment to the constitution adopted at this meeting, a vice-president was elected for each county in the state.

The result was the selection of the following officers:

President—Enoch W. Vars, of Niantic.

Vice President—Providence County, James M. Fenner, of Providence.
" " Kent County, S. W. Himes, of Phenix.
" " Washington County, Geo. E. Greene, Hope Valley.
" " Newport County, Wm. H. Cotton, Newport.
" " Bristol County, Jos. N. Morris, Bristol.

Secretary—William E. Cates, Ph.G., Providence.

Treasurer—A. Fenner, Providence.

Executive Committee—A. W. Fenner, Jr., Providence; James O'Hare, Providence; Charles E. Greene, Ph.G., Hope Valley.

Cammittee on Legislation—F. A. Jackson, Woonsocket; Charles A. Gladding, Providence; Mason B. Wood, East Providence.

Committee on Papers and Queries—Charles E. Greene, Ph.G., J. N. Morris, F. H. Walsh.

Delegates of American Pharmaceutical Association—W. E. Cates, Ph.G., Stephen F. Fiske, E. E. Earnshaw, H. J. Alfreds, A. W. Fenner, Jr.

At the conclusion of the business, Mr. Charles E. Greene, Ph.G., read a paper on "Notes and Queries," which will be found elsewhere in the Monthly. After a general discussion the meeting adjourned.

PAPER ON NOTES AND QUERIES.

By CHARLES E. GREENE, Ph. G.,
HOPE VALLEY, R. I.

Read before the Rhode Island Pharmaceutical Association, at its Annual Meeting, January 11, 1893.

QUININE and potassium iodide?

℞ Potass. Iodide, ... ℥ii
Quinine Sulph. . . . . ℥iiss
Acid Sulph. Aromat . . . . . q. s
Aquae, ... ℥vi
M.

Result was the liberation of free iodine, besides a flocculent precipitate, and in 24 hours it became almost a solid mass or as thick as paste.

This shows the general incompatibility of iodides with alkaloids. Potassium iodide is one of the ingredients of Mayer's Test Solution or precipitant in the estimation of alkaloidal strengths.

Whence this incompatibility?

℞ Tinct. Nuc. Vom. . . . . ℥ ss
Tinct. Gent. Co. . . . . ℥ ii
Tinct. Cinch. Co. . . . . ℥ iss
M.

The fixed oil always present in the nux vomica bean, having been dissolved in the alcoholic solution which is used in the preparation of the tincture will be thrown out of solution by the water in the hydroalcoholic menstruum used in the compound tincture of gentian.

℞ Quininœ Sulph. . . . . grs. xxx
Acid Sulph. Dil. . . . . q. s
Ext. Glycyrrhizœ Fld . . . . . ℥ ii
Syrupi, ... ℥ iv
M.

The habit of using dil. H_2SO_4 in quinine mixtures is faulty when in combination with fld. ext. licorice.

Roussin proved, years ago, that the active principle of licorice root to be an ammonium salt, and from the fact that in the manufacture of the fluid extract the alkaline NH_4OH is used to extract the glycyrrhizin would show that upon the addition of an acid, decomposition would result, and from the nature of the glucoside an unsightly mixture would result. If the acid sulph. dil. q. s. be omitted, the patient, as well as those concerned, will be the gainer in patience and experience.

What is the reaction and what care should be used in the preparation of Fowler's Solution?

The utmost care should be used in the preparation of the U. S. P. liquors, especially those that are dispensed in 1 per cent. solutions, or are as active as the one above, for, by the presence of the insoluble calcium sulphate in the commercial powder and the insoluble arsenite of calcium which often constitutes as much as one-fourth, the U. S. P. must be strictly adhered to if the liquor potassii arsenitis is to have anything like a definite strength.

Only the pure crystals should be used to insure to the physician a *fixed definite* product which he can employ at different intervals, and have the same thing at all times.

Arsenious acid, more properly called arsenious oxide, for it is really the arsenious anhydride which, having been deprived of its H_2O, readily becomes an acid by coming in contact with H_2O. This is what the U. S.

P. means to be used in the preparation of liq. potass. arsenitis, with an equal quantity of KH CO_3.

According to the molecular weight, and relative quantivalence of the $H_3As\ O_3$ (arsenious acid), and K HCO_3 (potass. bicarb.) would require two molecules of the latter to one of the former, according to the following reaction:

$$(1)\quad \overset{197.8}{As_2\ O_3} + 3\ \overset{54}{H_2O} = 2\ \overset{(251.8)}{H_3\ As\ O_3}$$

$$(2)\quad \overset{(251.8)}{2\ H_3\ As\ O_3} + 4\ \overset{(400)}{K\ H\ Co_3} = 2\ \overset{(403.8)}{K_2\ H\ As\ O_3} + 4\ \overset{(248)}{H_2\ Co_3}$$

$$(3)\quad \overset{(248)}{H_2\ C\ O_3} + H_2O = \overset{(36)}{2\ H_2O} + \overset{(120)}{(C\ O_2)_2}$$

$2\{H_3 - 3$	$4\{K - 39$	$2\{K_2 - 78$
$As - 74.9$	$H - 1$	$H - 1$
$O_3 - 48$	$C - 11.97$	$As - 74.9$
	$O_3 - 48$	$O_3 - 48$
125.9	99.97 approx. 100	201.9
2	4	2
251.8	400	403.8

So it will be seen that 197.8 parts $As_2\ O_3$ or approx. 200 parts, require 400 parts of KH Co_3 to satisfy it, or 4 parts=2 parts. But the U. S. P. says equal parts, or 1% of each.

This being heated in a concentrated solution the bicarbonate would be decomposed with the formation of arsenite of potassium and evolution of CO_2.

The liquor, although the acid has not been satisfied according to its molecular weight, is alkaline to the test paper the same as any acid potassium salt would be.

After the solution has been effected, let cool, and then add the compound tincture of lavender and dilute to 100 parts; will give a better looking product than if the compound tincture be added while hot.

What is the reaction and to what is the change of color due? viz.: sweet spts. of nitre.

Reaction for the production of ethyl nitrite from alcohol:—

$$\underset{\text{(Alcohol.)}}{C_2H_6O} + HNO_3 = \underset{\text{(Aldehyde.)}}{C_2H_4O} + \underset{\text{(Nitrous Acid.)}}{HNO_2} + H_2O$$

$$\underset{\text{(Alcohol)}}{C_2\ H_5\ (OH)} + HNO_2 = \underset{\text{(Ethyl-Nitrite)}}{C_2\ H_5\ No_3} + H_2O$$

Nitric acid re-acts on the alcohol to produce nitrous acid and water. The nitrous acid re-acts on a second molecule of alcohol forming ethyl-nitrite.

The change of color is due to oxidation of the aldehyde. The spirit

of nitrous ether is never free from aldehyde, and if distillation is too long continued, it is apt to contain a great deal of that liquid.

This is a fine example of a primary alcohol, viz.: by oxidation of the ethyl alcohol ($C_2 H_6O$) yields aldehyde ($C_2 H_6O$) and this by further oxidation yields acetic acid ($HC_2 H_3 O_2$), all having the same number of carbon atoms that the alcohol itself has.

Is chloral hydrate incompatible with alkalies and alcohol?

℞ Potass. Bromide, ... ʒiiss
Chloral Hydrate, ... ʒii
Spirits Ammon. Aromat, ... ʒii
Aquœ, ... ʒvi
M.

On making up, the prescription was uniformly cloudy from separation of the oils in aromatic spirits. After standing a half hour or so, an oily, straw colored sediment was deposited, consisting of *chloral alcoholate.* Wherever this combination occurs there is a formation of this alcoholate which is insoluble and which is much harsher in its action than the chloral hydrate itself. The compound is not of itself dangerous as it may be distributed by shaking throughout the liquid, but such a mixture is not elegant pharmacy.

An Explosive Prescription:

℞ Spts. Aetheris Nitrosi, . . . Fl. ʒiv
F. E. Buchu. . . . . Fl. ℥iiss
Syr. Zingib. . . . . Fl. ℥i
M.

It has long been known that spirit of nitre acts on tannin in such a way as to give rise to nitrous vapors and that gas so liberated will cause an explosion if confined. When tannin is present in a sufficient quantity in any drug, such action is likely to take place, when the spirit of nitre is present.

This is notably the case with f. e. uva ursi which is rich in tannin; explosions occurring when it was mixed with the spirit, led to an investigation which brought out the cause noted.

Buchu contains a certain principle which not wholly identified as a tannin, may be ranked as a similar body and with this the nitre may be supposed to act as already stated.

It was first thought that the action of the nitre was due to the pressure of a free acid, but by further experiments it was shown that the same result is obtained by the use of a perfectly neutral article.

Explosion of Bismuth and Soda Mixtures.

A mixture of these two substances, the subnitrate and the bi-carbonate, is always certain to result in an explosion, unless it be dispensed in an extra strong bottle or the bottle be left uncorked, so as

to allow the gas that has evolved to escape. The explosion is due to two reactions which take place, the first being explained by the following reaction, viz:—

$$2Bi\ O\ NO_3 + H_2O = BiO\ NO_3 + BiO\ (OH) + HNO_3$$

This goes to show that if the bismuth-subnitrate or rather the oxy-nitrate is mixed with H_2O, a portion splits into bismuth oxy-hydrate and free nitric acid (HNO_3).

Consequently as soon as this acid is set free, it will react with the bi-carbonate of sodium liberating CO_2 and the nitrate of sodium stays in solution.

The second reaction takes place less rapidly and is based on the fact that the remaining bismuth subnitrate is gradually decomposed by the solution of alkaline carbonate with the production of carbon di-oxide, oxy-carbonate or sub-carbonate of bismuth being formed also, with the nitrate of the alkali metal.

That enough CO_2 is set free to burst an ordinary bottle may be shown by experiment.

If it were not for the second reaction that goes on so slowly, one could dispense such a mixture with safety by triturating the bismuth with the soda in a mortar, using a little warm H_2O at first.

This would promote the reaction between the $H\ NO_3$ and the bi-carbonate and drive off the CO_2 in a very short time, but since the warm H_2O will neither prevent nor hasten the second reaction, it seems that the trouble could be obviated by substituting the sub-carbonate instead of using the sub-nitrate.

If physicians were aware of these reactions that take place in the mixture which they almost daily prescribe, they certainly would not write for sub-nitrate but sub-carbonate.

NOTES.

"If we mistake not, Rhode Island is a prohibition state, says the "Pharmaceutical Era," which probably accounts for our receipt of a modestly worded epistle, from a modest anonymous correspondent, requesting a formula for a light hop beer containing not more than three per cent. of alcohol, but having enough pressure to run in a soda fountain. What, really, is the difference between a beer pump on a saloon bar, and a soda fountain in a drug store corner, if the product drawn from both is the same."

The Era, for once, is mistaken about Rhode Island being a prohibition state; we wish to inform them that it is not. Probably the correspondent wished for a formula for a *root beer*, not for a "*root of all evil*" beer as the readers of the "Era" were given to understand.

Mr. Theodore Hillier, a druggist of Cambridge, Mass., met with a serious accident some time ago by which he may lose the sight of both eyes. Mr. Hillier was compounding a prescription for a horse ointment. The preparation contained gunpowder and powdered leather. The leather had been burned to a powder in an ordinary mortar, and thinking it had cooled sufficiently, he added the gunpowder, when a terrific explosion took place, totally blinding Mr. Hillier. A physician was called and applied what remedies he could to relieve his distress.

SOCIETY REPORTS.

THE PROVIDENCE MEDICAL ASSOCIATION.

THE regular monthly meeting was held in the rooms of the Franklin Society, Monday evening, Jan. 2, 1893. The President, **Robert F. Noyes**, in the chair, **James H. Kingman**, Secretary.

The records of the last meeting were read and approved. **George K. Roberts** was reported upon favorably and elected a member of the Society.

Thomas W. Hague was also elected a member of the Association.

The Standing Committee reported, approving the recommendations to the General Assembly for the care of the roads of the State. **W. R. White** moved that action of the society be postponed for the present; carried.

Herbert Terry read a paper upon "*Preventable Deaths in Childbirth.*"

The writer believes the preventable deaths in childbirth are due to post-partum hœmorrhage, puerperal eclampsia, and puerperal fever.

Post-partum hœmorrhage is due to a relaxed state of the uterus. After delivery of the placenta, the uterus should be watched and firm uterine contractions insured by stimulating it on the slightest signs of relaxation; by cold or rubbing.

The patient should not be left until the uterus has remained well contracted for twenty or thirty minutes.

Puerperal eclampsia rarely, if ever, occurs without some lesion of the kidneys. When there is considerable albumen in the urine without other symptoms, the patient is in a good deal of danger. The most successful preventive of puerperal eclampsia is premature delivery or abortion. If the child is viable, delivery should be accomplished at once. If the child is not viable, an abortion should or should not be performed according to the length of time the pregnancy has already existed. In the majority of cases nature solves the difficulty by spontaneous miscarriage.

The greatest number of deaths occurring in childbirth are from puerperal fever, yet this, above all other causes can be with the most certainty prevented. Puerperal fever is every time sepsis and its preventive is asepsis.

DISCUSSION.

F. B. Fuller asked if Dr. Terry would bring the pregnancy to an end in all cases of albuminuria with any symptoms of urœmia.

H. Terry said he would not subject mother to the danger of

eclampsia. If threatening symptoms, or if there is much albumen, he would not prolong pregnancy after the child was viable.

J. W. Keefe.—There is no record from post-mortem examination of death from vomiting of pregnancy.

H. Terry reported a patient who died from inanition, due to vomiting of pregnancy where abortion could not be performed from family objection. Autopsy showed the patient was pregnant.

Dr. Bowen reported:

1. A Case of Addison's Disease—Mrs. S. forty-eight, died Aug. 8, 1892. Of a consumptive family; well until four years ago, when she began to have dyspeptic troubles. After two years her skin became sallow, becoming gradually darker, until her death, when it was of a bronze color. Her feet remained white. During the last six months of her life she lost flesh and strength. Was never really anœmic, menstruated regularly until the last. Three months before death she began to have difficulty in swallowing. Regurgitation of everything swallowed became a prominent and distressing symptom. Suffered terribly from hunger and thirst. For last three months was nourished almost wholly by stimulants and nourishment injected into the rectum. Drugs seemed of no benefit whatever.

Kraurosis Vulvae is a rare disease. It is a slow degenerative inflammation of the mucous membrane of the external female genital organs. If not checked it is very destructive of these organs. Is more common after forty years of age.

The writer reported two cases; the first did well under treatment. Tampons soaked in boro-glyceride gave great relief. Pure carbolic acid painted lightly over the actively inflamed spots was of great benefit. Iron, mercury, and iodide of potassium were given internally.

In the second case treatment proved of no avail, the patient dying in six months.

L. F. C. Garvin reported a case of prolapse of the funis multiparous. Examination showed os half dilated, membranes not ruptured, funis presenting. Tried to reduce cord by posture, knee shoulder position, but could not do it. Placed patient in lithotomy position and attempted to turn without rupturing membrane, but could not. The os opened more fully. Again, placing the patient in knee shoulder position, pressing back the head, the funis was brought towards the head and passed out of touch, allowing the head to present. Membranes soon ruptured and the case went on successfully.

W. R. White—Is not prolapse of the funis rare before rupture of membranes?

L. F. C. Garvin—Have only found it in one other case. There may be cases in which we do not recognize it.

H. Terry reported a case. Delivered a woman of a fœtus, size of four and one-half months, and at the same time delivered her of a child about four pounds in weight. This child was very cyanotic and died within twenty-four hours.

Harry W. Kimball, of Providence, was proposed for membership and referred to the Standing Committee.

The subject of improving the roads of the state was taken up for discussion.

F. B. Fuller moved that the recommendation of the Standing Committee be adopted. This motion was carried.

The Society adjourned at 10.05 P. M.

REGULAR MONTHLY MEETING, FEB. 6, 1893.

The Vice-President, **F. B. Fuller**, *in the Chair.*

James H. Kingman, *Secretary.*

Herman Canfield, of Bristol, read a paper entitled "A Brief Study of Hypnotism," which will be published in the Monthly.

The President—I will call upon **Prof. Delabarre**, of Brown University, who has kindly consented to be present.

E. B. DELABARRE, Ph. D., Associate Professor of Phsychology, Brown University.

Gentlemen, there is nothing to be said in criticism of the paper which has been read, because it is quite in a line with the results at which Psychology, by a study of the same question, has arrived. Although the paper does not, to any great degree, give an explanation of the phenomena present, yet in regard to all the facts of which the lecturer spoke I fully concur.

Psychology, as the lecturer himself said, has recently taken up this subject as a method of analyzing more fully the workings of the human mind, and finds in it a great amount of extremely useful aid. Just as the study of abnormal phenomena of all sorts, and the pathological conditions which belong to your own especial field, throw a greater light on the working of normal consciousness, so this artificially induced condition is of great assistance in explaining how the mind works normally.

In seeking for an explanation of these phenomena, modern Psychology has given up all those old theories which involve anything except what is entirely explicable though perfectly well-known forces. It explains all phenomena by means of suggestion working through the ordinary senses, and doesn't believe in any mysterious force or fluid which goes from the operator to the subject, or any unconscious effect of his stronger will, or anything of the sort.

There are a great many popular delusions in regard to hypnotism, also, against which modern Psychology protests. These theories are of course investigated in a critical and conservative spirit, and with a conservatism which is not ready to accept anything upon insufficient evidence. There are a great many enthusiasts who believe in the influence of hypnotism at a distance, without any contact between the persons at all,—from one room to another, for instance, or from one house to another. There are certain enthusiasts who believe in the direct influencing of the mind of one subject by the unexpressed will of the other, who believe in the transferrence of thought between the two, in certain wonderful influences of magnets, of medi-

caments in hermetically sealed bottles, or of certain other agents. But such enthusiasts are not, as a rule, scientific observers, and are not careful in the way in which the thoroughly scientific observer is careful; and it has been found possible to explain almost all these phenomena which have been investigated, by means of some things which were overlooked by the uncritical observer. Of course, there are certain things in regard to the state of hypnotism which are not fully understood to-day; and yet there are enough analagous states, and enough well known psychological laws, to make it known to us that the explanation has nothing of mystery about it, and is something which is entirely normal and natural. There are certain tendencies, for instance, in every normal person, the examination of which, in their various stages, throws a great deal of light on this subject. They are pointed out best in the work of Moll, which has been translated into English, and which is the best work in English that I am acquainted with on this subject. He points out that there are two tendencies in every normal person which bear a certain relation to each other, *i. e.* (1) that there is a certain amount of credulity, especially when it is connected with authority or frequent repetition. We accept almost all our scientific beliefs in this way. Except in our own particular fields, we reach our scientific and religious beliefs not through logical conclusions, but because of the authorities in whom we believe. Then another influence which is present very strongly, and which has brought about many seemingly marvelous effects, is the fact that any mental or bodily condition which is strongly expected by a person tends to manifest itself. We see its evidence through a very large field. In the field of cures, for instance, we know that the faith cures and the prayer cures and the Christian Science cures, and the various cures of that sort, are due to this influence. We know that sleeplessness can be cured very often by giving a person something which has no effect at all of itself, but which, through the expectancy of the patient, results in curing the sleeplessness. We know that hysterical patients can very often be cured by the expectation of such a result happening, the time of which occurrence they can predict to a minute. It is the expectation which brings it about.

Not only do such cures result through expectancy, but we also notice that an expected muscular movement tends to take place; and the marvels of the divining-rod and table-tipping and planchette-writing are all due to this. An unconscious, unintentional movement results from the expectation of that movement. We also know that expected sensations tend to be felt. Very often we can produce a sensation in a person if we lead him to expect that sensation. I tell him that I am going to mesmerize him, and make passes, and that he will feel a strong electrical influence from my hands. If he is a believer in such things, even if I make no passes, he is apt to say that he feels such an influence.

Then there is another psychological law which has a very great bearing on this particular subject, and that is that any idea of an object or of a movement tends to cause belief in the actual presence of that object, or to actually bring about that movement. When we do not perceive an object or carry out a movement thought of, it is because there are opposing ideas preventing it. But if the idea is alone in consciousness with no conflicting ideas, the hallucination, or movement, or firm belief occurs. We have exactly such a state as that in our dreams. The evidence of present sensations and the critical reflections present in our waking life are absent in dreams, so that each idea present tends to become an hallucination. We can have states in which one or the other of these factors is absent. For instance, we can have our sensations awake when our critical activity is asleep; in such cases we have hallucinations in normal life. We can have sensation asleep and critical activity awake; in such case a person may be dreaming and know he is dreaming, He may perceive these things with the hallucinatory effect of dreams, realize at the same

time that they are hallucinations, and yet be unable to know what are the real circumstances (2) until he makes a struggle to awake. Bearing these things in mind, it becomes easier to arrive at a more accurate psychological explanation of these phenomena.

There are different classes of persons, upon whom the hypnotic influence works differently. There are some persons in whom credulity is very much stronger than in others. Such persons can be hypnotized with extreme ease; and the influence there is due to the exaggerated credulity, to a belief in the authority of the person, and to the occurrence of expected states. Then there are other persons who are skeptical and critical and who are constantly reflecting on their own states. They are extremely difficult to hypnotize, and yet they may be hypnotized if they have sufficient power of concentration of attention. If attention could be fully concentrated on any idea, it would of course result in that idea being the only thing in consciousness, and hence in the actual production of belief or movement, as I pointed out a moment ago. So if such an intelligent and critical and skeptical person wishes to be hypnotized, it is difficult to do it unless the subject has been explained to him and he is then able to concentrate his attention.

We know that we can detect sensations in any part of our own bodies if the attention is strongly concentrated there. Now if we direct a person's attention to certain phenomena in that way, we can gradually reach other phenomena as he becomes convinced more and more that the facts to which we directed his attention are present one after another. So it is easy to gain control of the voluntary muscular activity. The effects upon the voluntary muscles are due to expectancy of such results; and, in such persons as I have mentioned, sufficient attention and concentration upon the muscular action will bring about a state of the mind in which paralysis is exceedingly easy to produce, or an involuntary movement. If you request a person to hold out his hand and tell him that the hand will become fatigued and he cannot hold it there any longer, there is liable to be a little jerk downward, which is a result of the idea which you have suggested to him. If you tell him his arm is going to bend, it is apt to do so involuntarily unless he exercises an active opposition; and it is the exercise of an active opposition in such persons which is the chief thing to overcome. The movement in such cases is not a voluntary movement; the hand doesn't move, because he makes it move, but because he withdraws all active opposition to its movement.

So of illusions brought about in hypnotism. These cannot be brought about, as can the muscular phenomena, without a certain amount of the state analogous to sleep or dream consciousness; but once this dream consciousness aroused, illusions can be produced as in the case of sleep, and it is aroused by means more or less analogous to the means for producing sleep.

Recent experiments have shown that various narcotics, which are used for making persons unconscious, are also extremely useful in increasing hypnotic suggestibility. Certain modern Psychologists claim that the act of going to sleep is due to a psychical effect, *i. e.* the expectancy of the occurrence of sleep, and that a gradual increase of the products of fatigue in the body is by no means a complete explanation of the phenomena of sleep. So the various methods which hypnotists employ to bring about this state are merely methods proved by experience to be favorable to the production of this dream consciousness. We can talk a person to sleep under favorable conditions. The chief respect in which the hypnotic state which reaches this dream consciousness differs from ordinary sleep, is the fact that there is a certain rapport which exists between the operator and the subject, which can be of a very varied character depending on the training which the subject receives, etc. It is probably very similar to the influence by which a mother awakes at the slightest

movement of her infant, and yet sleeps well through noises of other kinds. The rapport is due probably to the fact that on going to sleep the subject's attention is fixed at the same time upon the experimenter, and the subject has continually in his mind the idea that a rapport is going to exist between them. Such facts as these explain to a certain large degree the peculiarities of the hypnotic state, whether it be a state with actual loss of consciousness, a state similar to sleep, or an influence upon the voluntary muscles or upon other functions without the production of sleep; and the number of states which are analogous and which are transitional between the normal waking life and the hypnotic state are so many, and are graded from one to the other so thoroughly, that it is possible for us to understand to some degree the nature of hypnotism, and to regard it as perfectly normal and possessing nothing occult or marvelous.

It has pleased me very much to see the interest in this subject which is being awakened now in America. It has been extremely slow in coming, and has shown itself in comparatively few centers as yet; but there is no doubt that it can be used, as the speaker of this evening said, with great beneficial effect in the cure of a large variety of diseases. Even where it is impossible to effect a cure, great help can be given by regulating sleep and digestion, for instance, and other things which are of importance in bringing about a cure through other means. Among the chief reasons why it has not been accepted more by physicians in this country are probably the absurd theories held in regard to it in past times,—theories which began with the occult beliefs of Mesmer and his followers, and which were spread abroad by the traveling shows which have not been infrequent in this line, and which have been given by persons who as a rule were ignorant of the phenomena which they themselves produced. Then another cause of discouragement has been the fact that it is not always easy to produce the hypnotic state. The conditions are not always so favorable as at the sanitarium at Bristol. And yet to bring about a certain degree of somnolence is not a difficult thing at all. The suggestion works strongly when there is merely this sleepy feeling and no loss of memory afterwards, and a great many valuable results can be reached in such a state as that. A recent writer has claimed that this is more favorable than the deeper states in bringing about curative effects. I think that is hardly the general view among physicians who have tried it, but it shows that a great deal can be done with a slight degree of hypnotism. The result of this study by the medical profession I am sure, will result in a much greater use of suggestion as a therapeutic agent, whether it be given in the waking state or after hypnotizing the patient. When knowledge of its nature and value, and of the methods of using it, becomes more widespread, the present antipathy to its use will disappear.

DISCUSSION BY WM. H. PALMER, M. D.

Mr. President: I am happy to express my thanks to Dr. Canfield for his able and interesting paper. His views on the subject of hypnotism are fully sustained, I think, by the current literature. I wish, if it had been proper, he might have introduced to us some one of his suggestible patients, and exhibited the interesting phenomena of hypnosis. I am also pleased in the discussion of the subject by Professor Delabarre. His views of the psychological law of hypnotism, are clear and instructive. He is a physiological psychologist, and I like to learn the views of such gentlemen on any metaphysical question.

When the President of this Association kindly asked me to discuss the subject of hypnotism I told him that my study of hypnotism had been confined to its medico-legal aspect. Now I am sure, gentlemen, that most of you are interested in psycho-therapeutics, rather than in the jurisprudence of hypnotism. I must, therefore, ask

your indulgence to a brief discussion of the medico-legal aspect of hypnotism—an aspect less interesting, perhaps, but not less important.

In the current literature of hypnotism, discussions and reported experiments by the teachers and disciples of the schools of Nancy and Paris, hold the first place. This is the result of the new birth of hypnotism in France from the conception of Mesmer, and because the Frenchmen are happily constituted to deal with occult sciences. And that hypnotism is an occult science, needs no further proof than in the dissensions arising in the discussions by the faithful, especially in the medico-legal aspect of the question. The school of Nancy claims that hypnotism opens the door for the commission of crime; that it provides for the easier commission of crimes and will better conceal the footprints of the criminal. The school of Paris seems to deny these deductions in claiming that the published experiments of the school of Nancy, wherein persons in the post-hypnotic state, have proceeded unhesitatingly to commit the crimes suggested, and would have committed the crimes but for an exchange of the suggested weapon or poison, are the experiments of the schools, and the laboratory, that have not yet been submitted to the crucial test of science. Dr. Berillion, however, of the Paris school, has recently said, that undoubtedly, in the hands of conspirators, those persons susceptible to the suggestions of hypnosis, to wit, the hystero-epiliptics, women, and especially children, who have undeveloped, or functionally disturbed, or defective nerve centers, may be more easily controlled; may be compelled by suggestions, to commit petty crimes, give false testimony; and in the making of wills, the testamentary capacity may be subjected in a greater degree to that *under influence* which is now the chief contention in will cases in court. Relative to the greater crimes that may be committed upon, or through, persons in the hypnotic, or post-hypnotic state, the schools are also in disagreement. The school at Nancy claims that in hypnosis, crimes against chastity and fœtal life, may be committed with comparative safety by reason of the amnesia of the post-hypnotism; and, in the crimes suggested to the hypnotics that they will commit at the suggested time and place against others, it is also suggested that the subjects will commit the suggested crimes unadvisably and of their free will. The school of Paris is against the optimist, disbelieving that hypnosis by reason of the short duration and uncertain character of the post-hypnotic amnesia, offers any immunity to the detection of crimes against the person; or, for the same reasons, that the conspirator would trust his secret to a hypnotic, however emphatic the suggestions had been made in hypnosis, that the suggested crime will forever be declared by the subject, as his crime.

In my opinion, hypnosis neither opens a door for the commission of new crimes, nor makes the commission of any crime easier or more safe. But that the real danger from hypnotism is its retroaction on neuropathics, who, as a rule, are the most suggestible; and in this bearing of the question lies its important medico-legal aspect. For I apprehend that every hypnosis induced, is an induced neurosis, and that frequent neurotic inductions must cause instability of the nerve centers, resulting in psychoses and insanity. The neuropathics, as found in dipsomaniacs, and others suffering from the abuse of brain drugs, in the hystero-epileptics, and defectives of every class, seem to be on the borderland of insanity. To induce such new neurosis, or, unnecessarily incite existing neuroses, is both an unwise and dangerous experiment.

In normal sleep the mind is in relation with itself, and in more or less control of dream suggestions; but in induced sleep the mind seems to be *en rapport* with, or under the control of, an *alter ego*. This *alter ego*, perhaps the personality of the operator, seems to break the rythm of the mental and sense nerve centers. In the induced sleep, as in spontaneous somnambulism, certain of the nerve centers seem to be in abeyance, while others are necessarily exalted. The somnambulist, as well as the post-hypnotic, guided by the exalted sense and driven by the irresistible impulse

arising therefrom, accomplishes feats of strength and daring, that with the senses in unity, he could not attain. The sense of seeing may be lost, while the sense of feeling rises to the work of vision. The sense of hearing may be in abeyance, and vision rises to the reading of speech in the motion of the lips and face expressions.

It is this breaking of the constant current through the nerve centers that is followed by the post-hypnotic automatism wherein the will of the individual is supplanted by the will of another; wherein intellect is supplanted by blind impluse; wherein the moral is supplanted by the vicious purpose; and wherein education may be supplanted by ignorance; that, in my opinion, is most to be deprecated as a possible outcome of hypnosis.

I do not wish by these remarks to be understood as condemning hypnotism; for, as a therapeutic agent resting on suggestion, it has a recognition in medical literature that cannot be disputed. Psycho therapeutics is coeval and coexistent with the history of man. From suggestion have come the religions of humanity, and the inspiration of the worshipers at the cross, at the sacred rivers, shrines, and temples; of the holy coat at Treves, and the power of the King over the evil. It has been the empirical therapeutics of the past, but is the rational therapeutics of to day. But to have psycho-therapeutics exhibited at the best, the patient must be *en rapport* with his physician, as the worshiper at the sacred shrine is with his interceding saint; must have abiding faith in the skill and knowledge of his physician, and a belief that rises to a mental effort, that his cure will be effected. Such a cure is a gain to nerve stability. But when the confidence of the patient is of an emotional or unreasoning nature, the physician's cure is effected at the expense of the mental integrity of the patient, to the loss of nerve stability. The best cures of psycho therapeutics are attained through resistances to nerve instability, and in strengthening the mind by accustoming the will to act promptly, and through repetition of choices.

Crimes have been committed, and are being committed, where both detective skill and judical inquiry fail to discover the motive or purpose therefor, and which at times, are alike inexplicable to prisoner and jurist. Hence the defense is often made, and at times I believe correctly, that, if the prisoner committed the alleged crime, he could not have had any knowledge of the act; that he could not have had any motive for the act; that he could not have premeditated the act; and if he committed the act, he must have been impelled thereto by an irresistible impulse.

As a cause for such apparently motiveless criminal acts, alienists assign mental disease and consequent loss of will power. Scientists claim an imperative homicidal instinct through atavism. Believers in hypnotism find in the suggestions of hypnosis and in the automatism of the post-hypnotic state, the controlling power; the *alter ego;* Jurists, or the *dicta* of law, that every person intends the consequences of his own acts, and that all persons in law are considered to be free, moral agents, declare that a purpose or motive exists for every human act.

From these dissensions in the schools and professions relative to the cause of apparently motiveless criminal acts, have arisen in part the judicial contentions of the question.

And how is the question of responsibility for crime to be solved? How is the truth to be elicited? How can the character of testimony be elevated? By hypnosis, answer some of the believers in hypnotism; that if the prisoner will submit to be, and is, hypnotized, the fact of a former hypnosis, if such exists, will be made to appear together with the suggestions thereof, which, if criminal, will declare the conspirator and confederate; that under suggestion, all those facts would be sworn to in the post-hypnotic state. But say our jurists, this would be coerced testimony; and the law requires no witness to give testimony that shall or may criminate himself. Neither would the statement of the prisoner when in hypnosis, be of any avail as

testimony, because such a statement would be a confession under duress, and hence, not admissible in evidence. And who shall say that the suggestions, if such led the prisoner to commit the crime, was not an anto-suggestion? The constant thinking of doing something, though really never intended to be done, may, in neuropathic subjects, become at any moment, an intention impelled to criminal acts by an irresistable impulse. It is said of George IV that from constantly repeating the story of his being at Waterloo, he at length avowed that he had taken part in the battle.

Now if a prisoner who is guilty but denying his guilt by plea and word, and who is supposed to have committed the motiveless crime by suggestion, should be hypnotized, thus, in the presence of all the facts of the former hypnosis, is it probable that he will declare the same by suggestion in the post-hypnotic state? Prof. Liegeois believes that he would; that if Gabrielle Bompard had been re-hypnotized by order of the court, she would have recalled by suggestion, the conspirators of the brutal murder of Gouffe. Lombroso tried to obtain a confession of crime in a case proven, but the prisoner told the same tissues of lies in hypnotism as when awake.

Notwithstanding the opinions of the believers in hypnotism as based upon the experiments of the schools, I cannot understand how a person under the influence of the suggestions of hypnosis, can be entirely subjugated to the will of another; how his mentality can be made wholly automatic. To deny the influence of suggestion in the presence of the recorded facts of hypnotism, seems absurd; but to admit that in the post-automatism of hypnosis, there remains no latent controlling sense of the *ego*, is not warranted in the present evolution of the science. For in its medico-legal relation, if the assumption can be maintained, that the post-automatism of hypnosis is the absolutism of an *alter ego*, then the defence for the criminal act, and the acquittal of the prisoner, would rest in the proof of the suggestion, or anti-suggestion.

I am sure the courts of Rhode Island will hesitate before admitting as testimony, revelations of hypnotism; for they will contend and with much truth, that the influence of hypnotic suggestion does not differ essentially, from the influence of persuasion; that in both there may be a conspiring operator, as there is a willing subject.

DISCUSSION BY J. FREDERICK HALLER, A. B., M. D.

J. Frederick Haller said there were some things about hypnotism which had not been touched upon much by the former speakers, particularly a physiological explanation of these phenomena. He would be very brief, however, well knowing, that the less a person knows about a subject the more he can talk about it. He mentioned what the scientist *Hugo von Mohl* had said: "That Philosophers establish their hypotheses, and afterwards try to have all things conform to them. Scientists also establish hypotheses, but they have their doubts about them all the time. All their experiments are directed towards assassinating the hypotheses. New experiments were constantly made to ascertain their truth, and if they held good in most cases, they were strengthened; and so the scientists continue attacking their hypotheses until their systems are complete." It would seem therefore that scientists were on the right road to explain such phenomena. In speaking of *the efforts to explain hypnotism* he mentioned *Liebault*, who believes: that the nerve force made inactive by hypnosis is transferred to other centres, for ex., the centres of automatic functions and co-ordinating movements, he thinks that these centres are stimulated, intensified and more active in hypnosis. *Preyer* has a more physiological explanation, that the waste matter produced in the cortical substance is the cause of the depressed condition, but as hypnosis can be brought about instantly, there can be no waste matter.

A true physiological explanation of hypnotic sleep was made by *Rumpf* (in Deutche Med. Wochenschrift, 1880, No. 29). He applied strong faradization to a spinal

nerve and the parts supplied by it, and succeeded in this way to produce hyperœmia of the opposite side of the brain. He considered this a reflex action and that the arteries supplying this section of the brain were acted upon.

Dr. Krarup, of Copenhagen, cites the disturbance of the brain, brought about by compression or ligature of the carotid arteries, as a proof of this explanation of *Rumpf.*

Dr. Krarup maintains that hypnotic sleep is brought about by a contraction of the two carotides internœ, producing an anœmia of the cortical substance. He claims that the external carotids as well as the vertebral arteries are dilated, as there is a red flushed face and great blood supply to the head. He cites the brightness of the schlerotic conjunctivœ and the tears usually secreted by hypnotized persons, as proof of his hypothesis. He explains the secretion of tears in this manner: that the Inferior Cerebellar branch of the Basilar artery passes close by the root of the Trigeminus nerve, and that the Lachrymal and the Subcutaneous malar nerves, being branches of the Trigeminus are stimulated by the increased blood supply from the Vertebral Arteries and that tears are thus produced. As a further proof he mentions the clonic contractions in the muscles of mastication brought about by the motor branch of the Trigeminus and noticable in some hypnotized individuals. The increased function in the sense of hearing he explains as caused by dilatation of the Arteries Auditiva, thus producing intensified hearing, as is proven by experiments made by *Beaunis*. He claims that more or less increased function is usually present in the organs governed by the third, fifth and seventh nerves, which lie close to the dilated arteries.

Charcot and his followers maintain that hypnosis is pathological, and his opponents are just as strong in their claims that it is a physiological condition. Both sides seek their proofs in urinary examination, but this has proved nothing.

Krarup thinks that it is better to compare hypnosis to chloroform anesthæsia. He claims that there is no particular difference between the two, except in the way they are produced, and cites opinions from *Puységur* (*1787*) to *Beaunis* (*1886*) who speak of it as *Somnambulisme provoque*, as proofs of his hypothesis. As chloroform narcosis has sometimes proved fatal, it may be spoken of as a pathological condition but hypnosis has never, says *Krarup*, killed anyone, and should not for this reason, be excluded from our therapeutic measures. He hoped hypnosis would soon be explained to our satisfaction, as a physiological problem, of which *Berger* said in 1880, "*die physiologische Lösung der Frage an die Grenzmarken unserer Erkenntnis gelangt.*" *Krarup's* proposed explanation seems to be the same as that of *Lehmann*, that hypnosis is caused by a partial anœmia of the brain. At present we do not seem to have a better theory to offer.

To show how emphathic those specialists are, who have given up their life and their labors to the practice of hypnosis, he cited a passage from Prof. Forel's work on this subject, page 103, where he says: "*Liebault, Bernheim, Van Eden, Van Reuterghem, de Young Moll* and we other followers of the Nancy school declare categorically that we, supported by a material of many thousand hypnotized persons, have never noticed a single case of considerable or lasting discomfort of either mental or physical faculties in our patients by the use of hypnosis, but on the contrary, we have seen many instances of cure and improvement." And further he says: "We must all be miserable liars, or else the dangerous conditions reported as having been due to hypnosis must in reality be due to wrong or poor methods, or to ignorance or lack of experience of the operators, or else upon ill planned and foolish experiments."

Notwithstanding all the glowing accounts given by specialists in this work, it may be well, perhaps, for the general practitioner to view hypnotism with a critical eye,

and refrain from much experimentation with it, until the darkness that still surrounds these phenomena has been cleared up and explained by physiologists. It is especially important that the profession should warn college students and others, not very far advanced in psychology or the sciences to meddle much with it; and a particular condemnation should be expressed about the disgusting practice of hyp nosis by the laity, and should be forbidden by legislative enactment, as in France and other countries. Only psychologists and scientists of repute and learning should be allowed to practice it. The speaker's small number of hypnotized patients and from what he had seen at the clinics of specialists abroad, prompted him to refer practitioners to the opinion arrived at by the Committee appointed by the British Medical Association a couple of years ago.

RHODE ISLAND MEDICO-LEGAL SOCIETY.

Adjourned Annual Meeting, 54 North Main St., Providence, Oct. 20th, 1892, 4 P. M.

OFFICIAL REPORT.

PRESIDENT **Barnard** in the chair. Record of the last meeting, held in Newport, read and approved. The Secretary-Treasurer, read his Annual Reports which were approved. The following gentlemen were elected officers of the Society for the ensuing year: *President*, C. A. Barnard, M. D., of Centredale; *Vice-President*, John Winsor, M. D., of Anthony; *Sec.-Treas* , H. Goodwin MacKaye, M. D., of Newport; *Censors*, Drs. Pike, (Bristol Co.), Garvin, (Providence Co.), Morgan, (Washington Co.), Winsor, (Kent Co.), and MacKaye, (Newport Co.) Dr. MacKaye opened the discussion on "*The Identification of the Bodies of the Dead.*" The subject was further considered by **Drs. Palmer, Keefe**, and others.

Dr. Keefe opened the discussion on "*The Medical Examiner's duties and jurisdiction in cases of sudden death, occuring in the public highways, or other places of common resort, with special reference to a possibly impending epidemic of Cholera.*"

At the close of the discussion, some matters of business were brought before the Society.

An adjournment was then made and a collation partaken of.

Adjourned Quarterly Meeting, Feb. 2, 1893, 3 P. M.

C. A. Barnard, M. D., *President*, John Winsor, M. D., *Vice-President*,

H. Goodwin MacKaye, M. D., *Secretary-Treasurer.*

The President in the chair. Record of the last meeting read and approved. On motion, Messrs. **MacKaye, Garvin and Palmer** were appointed to draw up resolutions relative to the death of **Geo. A. Pike, M. D.**

The President and Secretary were elected a committee to co-operate with the Executive Committee of Medical Jurisprudence of the World's Congress Auxiliary, to be held in Chicago, during the Exposition of 1893.

L. F. C. Garvin read a paper on *The Recent Fatality at Lonsdale.*

Twenty-six persons were riding in a party sleigh, drawn by four horses, down a slight incline to the railroad crossing, singing and merry, a few minutes before one o'clock, P. M., Jan. 18, 1893. At the same moment a heavy freight train was approach-

ing at the rate of 16 or 18 miles an hour. The two moving bodies collided at right angles with the following results to the lighter and slower of the two :

The lead horses escaped unhurt and ran away ; the wheel horses were killed and thrown westward twenty to forty yards ; the sleigh was broken and turned completely around. Seven of the party were instantly killed ; one received injuries from which she died nine hours later ; several others sustained fractures, simple and compound. The bodies were found ten, seventeen, twenty-four, twenty-five, thirty-five, forty-five and one hundred and fifty yards from the middle of the crossing.

The last named body, that of a small man, was mangled and torn to pieces by the locomotive tender and twelve loaded cars passing over it. Fragments of this body were found upon the track. The fatal injuries in eight cases comprised extensive scalp wounds, compound fracture of the left fermer and mangling of the toes of the right foot. All appeared to have been instantly killed by the crushing of the skull and laceration of the brain, except one. In two, one of the upper extremities had been severed. One, a slender female, had the right side of the chest crushed, which was the apparent cause of death. In all six cases death seemed to have been caused by the blow received directly from the moving train.

The discussion was opened by **Wm. H. Palmer.**—This Society voted some six years ago that in all deaths by railroad accidents, the examiner shall notify the Attorney-General and Coroner. Our work ends with the simple declaration of the cause of death. Dr. Garvin, in this case, very properly deferred to the coroner the question of who was to blame. In determining whether a death is due to the act or neglect of a person other than the deceased, or to misfortune, testimony of the employees of a railroad upon which the accident occurred, must never be considered as final.

The President remarked that often the testimony of the employees of a railroad was the only verbal evidence obtainable. Under such circumstances it would have to be sized up for what it was worth.

Wm. H. Palmer called attention to the extreme mobility of the neck in cases of sudden death due to violence ; this phenomenon is misleading, in so far as its simulates fracture. It is but a part of the general condition of relaxation of the whole muscular system, which is also shown by the dilatation of the pupil, an appearance without any special pathognomonic value in these cases.

H. G. MacKaye spoke of the desirability of a uniform method of recording the facts observed when viewing a body. If each examiner possessed a card having printed upon it a schedule of those phenomena which must always be noted, many important facts, now often omitted, would be recorded for future reference.

Voted, that a committee of three be appointed by the chair to draft such a schedule and report to the next meeting. **Palmer, Keefe and Garvin** were appointed.

H. G. MacKaye also called attention to the need of great care on the part of examiners, if called upon during an epidemic of disease to take charge of bodies of persons, where violence was not clearly, easily and early discernible as a cause of death. There is nothing, apparently, to prevent an examiner from inquiring into the cause of death, unofficially, and satisfying himself about the probabilities of violence, before appearing as an official, and viewing the remains, and thereby binding himself to take charge of and cause the body to be properly interred, unless some one comes forward to relieve him of the responsibility.

Geo. E. Carpenter thought that under certain circumstances town-councils would gladly have the burden of doubtful cases lifted from their shoulders by the interference of a state official. It would be hard to be too careful in such cases.

M. W. Kelliher asked if there was any provision in prospect looking to the abolition of grade-crossings by statue? A discussion of this subject was generally participated in by those present.

Voted, that the President and Secretary are instructed to draw up and present a memorial to the Legislature, looking to the abolition of grade-crossings.

At this stage of the proceedings a polite young man approached the president and looked as if he wanted to say: "Mr. President, lend me your ear," which that officer with his usual amiability did, and the result of this short interview was, that the meeting adjourned to a hotel near by (where no strong drinks are allowed) to *view* some shellfish cut down in their prime, as well as other good things. The collation was excellent, to which I am ready to bear *testimony*, and one of the most enjoyable features of the evening was to sign receipts for paid in subscriptions to the Monthly, and take down the *testimony* given by the *experts* present about the happy birth of the R. I. Med. Science Monthly, whose evidence of life and progress they had opportunity to *view* every month, and the case of the Monthly was finally decided by *this court* to have been: A normal presentation; a birth under difficult circumstances; a large and lively child, which was in high need of strong nourishment, not only of shellfish and kindred good things, but also of paid up subscriptions, which were accordingly forthcoming; and finally, the good will of the *court* culminated in making the Monthly the **Official Organ** of the **Medico-Legal Society.** This good treatment, at the hands of our Medico-Legal brethren, shall linger in our mind for years to come, as a pleasant memory and appreciation of our humble efforts in medical journalism.

WASHINGTON COUNTY MEDICAL SOCIETY.

THE ninth Annual Meeting of the Washington County Medical Society was held at the Dixon House, Westerly, R. I., January 5th, 1893, the President, Dr. John Champlin, in the chair. After the usual amount of routine business was disposed of, the following officers were elected for the year ensuing: *President*, Dr. E. E. Kenyon, of Usquepaug; 1st *Vice-President*, Dr. William James, of Westerly; 2nd *Vice-President*, Dr. H. Russell Dunne, of Westerly; *Secretary and Treasurer*, Dr. J. Howard Morgan, of Westerly; *Auditor*, Dr. E. P. Clarke, of Hope Valley.

The President, Dr. Champlin, read the annual address, the subject being *Antiseptic Dressings*, which is published in part in the Monthly elsewhere.

DISCUSSION.

Dr. E. P. Clarke said in regard to **Dr. Champlin's** paper on antiseptic dressings, he could add nothing but general approval. He had seen good results in the army from the simple cold water dressing which had excited the admiration of all army surgeons who had witnessed its wonderful success. He was inclined to think the better results of modern surgery were due to better methods; to greater skill and familiarity in treatment of operative surgery, especially of abdominal surgery. To the improved methods we must give much of the credit for the success obtained in this field of science, which is generally accorded to antiseptics (almost wholly). Notwithstanding he had become almost a convert to antiseptic surgery, he had recently had two cases of gangrene, one of the scrotum, two-thirds of it sloughing away, leaving both testicles bare, and also carrying away a portion of the perineum almost to the spchincter ani; the other case was an injury to the leg, followed by a low grade of inflammation and loss of tissue from gangrenous sloughing. These cases both did well under the treatment by irrigation with a weak solution of bichloride and dusting the parts with aristol—which he finds equal to iodoform, minus its disagreeable smell.

Dr. A. A. Saunders said in reference to Dr. Clark's case (gangrene of scrotum) which he had treated antiseptically, and was highly gratified with the result, that he treated a similar case some twenty-five years ago, before antiseptics were in vogue, and obtained equally good results. In continuation he remarked that while not wishing to place himself on record as opposed to the principles of antisepsis as presented in the able and interesting paper of Dr. Champlin, yet this thought comes home to the older members of the profession that the *results* of surgical treatment of twenty-five or thirty years ago, do not compare so unfavorably with the modern antiseptic treatment, as the present teachings and practices would imply.

In no field is this fact more apparent than in that of midwifery, when, if one accepts as true all that is taught and insisted upon by modern teachers and text-books upon the absolute necessity of strict antisepsis in the lying-in chamber, we must be burdened with a keen sense of great peril to the prospective mother, and congratulate ourselves if we finally succeed in "saving the old man." He thought much of the credit given to antiseptics more properly belonged to the advanced methods of modern surgery.

Dr. Russell B. Smith said that while Dr. Clarke, as he states, may have seen excellent results during his army experience from the simple water dressing, the cases of septic poisoning, erysipilas and hospital gangrene which were so plentiful, would have been much less prevalent, could antiseptic precautions have been taken. It is in the large institutions where septic material prevails that the effects of antiseptic dressings show themselves. The cuts and sores which we as surgeons are called upon to dress, are made to heal more readily and quickly, by the stimulating effects of some antiseptic, and it is more for this reason that I apply them than for the prevention of absorption or the production of these septic poisons.

INTESTINAL ANTISEPSIS IN TYPHOID FEVER.

Dr. A. B. Briggs opened the discussion on *Intestinal Antisepsis in the treatment of Typhoid Fever.* He said: While it is a fact that typhoid fever is due to a specific poison, it is also true that we know of no specific for the disease. Next in importance to the antipyretic treatment, if indeed not before it, comes the antiseptic treatment of the fever. It has been demonstrated, peradventure, that there is developed in the gastro-intestinal tract during an attack of the fever, certain poisons, ptomaïnes, that at least have a tendency to increase the pyrexia, and to a great measure aggravate, if not develop intestinal lesions and symptoms; it has also been demonstrated that certain so-called specifics have a tendency, by neutralizing these poisons, to lower the temperature, reduce the severity of the symptoms, and to materially shorten the duration of the disease.

The best intestinal antiseptics are those that are the least soluble; that is, those that are not soluble in the stomach, and this fact is good proof of their value in the treatment. It is reasonable to suppose that remedies that are soluble in the stomach and are taken up into the blood, while they may be of use to counteract any poisons in the blood, must of necessity possess very weak intestinal antiseptic powers. Among the remedies that have been used for this purpose are thymol, naphthalin, calomel, carbolic acid, iodine, turpentine, salicylate of bismuth, creosote, etc. Of this number thymol perhaps comes first with naphthalin a good second. He had used carbolic acid and iodine to a greater extent than any other remedy of this group, and always with favorable results; he had used thymol in one or two cases and should rely more upon it in the future, from the fact that its antiseptic properties are very much greater than carbolic acid, while its toxic effect was very much less; again, it is much less soluble and therefore reaches the small intestines in a more active state, and there exerts its great antiseptic virtues. The value of all these remedies is ex-

plained wholly by their intestinal antisepsis. The great drawback to the use of thymol is its insolubility, pungent burning taste, and the fact that it must be given in pill form.

The best results will be derived from the use of antiseptics if given in the first week or ten days of the fever. Given during this time, the fever will be reduced, the tongue will remain tolerably clean, tympanitis will be reduced, the patient will be able to take more food and to digest it, and statistics prove that the duration of the disease is cut short.

Dr. E. P. Clarke said in regard to the treatment of typhoid fever that he believed the only correct method was to treat it upon the expectant plan,—to treat each case upon its own merits, or in other words to treat the symptoms as they arise. Mild cases need but little medication. He had used the acid and ipecac treatment according to *Niemeyer* with good results. He had also used iodine and carbolic acid, but failed to see that the disease was cut short by either of these drugs. He had got through giving them,—did not think it right to punish his patients with nauseating draughts without some beneficial results. He gave aconite, quinine and belladonna and supporting treatment in general, he did not think the treatment by antiseptics had lessened the mortality a single fraction, therefore could not adopt it.

Dr. A. A. Saunders remarked that it had been his practice for years to give at the outset a purgative dose of calomel, followed by alternating doses of the same for the first week or ten days. After that he would insist upon strict attention to diet, and direct his treatment quite as much to the patients' friends as to the patients themselves.

Dr. Briggs said in conclusion, that the days of expectant treatment of typhoid fever had passed, and in his opinion the physician that neglected or refused to resort to the antiseptic, the so-called "specific" treatment, was not doing justice to his patients.

DENTISTRY.

IN CHARGE OF S. W. CLARK, M. D., D. D. S., PRES. R. I. DENTAL SOCIETY.

R. I. DENTAL SOCIETY MEETING.

THE second regular meeting of the R. I. Dental Society was held at the rooms of the Providence Franklin Society, Monday, Jan. 16, at 8 o'clock. On account of the severity of the weather there was a small attendance at the meeting but a very enjoyable occasion it was to those who did attend. The society was called to order and considerable business was transacted. It was voted to give the assistance of the society to the same beneficiary student as last year. It was also voted to make an amendment to Article III of the Constitution involving a change of the annual dues from one to three dollars. As this change cannot take place until next year, the executive committee were advised to make such assessments as they would need to meet the expenses of the society. After the business session was over, Dr. J. C. Allen presented an essay upon porcelain filling which commanded the attention of the society closely and elicited general discussion. Dr. Allen showed several pieces of work in porcelain filling and also the furnace and implements used by him. Dr. William S. Sherman, of Newport, reported a rare case of fracture of a molar and also a case of abscess involving the superior maxillary bone. After the meeting had adjourned the members partook of a collation prepared by Gelb & Norton.

Dr. Allen's paper will appear in the Monthly later.

The R. I. Medical Science Monthly.

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Books and monographs, native and foreign, on any of the Medical Sciences, will be reviewed without fail, according to their merits and the space at disposal.

Alterations in the proof involving an excessive amount of work, will be charged to authors at the rate of 60 cents an hour.

Contributors desiring Reprints or Extra Copies of the Journal can obtain them at reasonable rates by application to the Business Department immediately upon the acceptance of the article.

EDITORIAL.

EVERY progressive scientist will readily agree with us, we think, that our various City, County, State and National Medical Societies are doing a world of good in keeping scientists in close touch with each other and with scientific progress in general.

The *New York Academy of Medicine* and the *Philadelphia County Medical Society* are to be particularly commended for their generous and timely rules in regard to furnishing *verbatim* reports of their pro-

ceedings to periodicals for publication. The papers read, with discussions, are properly prepared and edited by a *paid secretary* and copies are furnished upon application to medical periodicals, and are thus available to the professional world.

In this way every author of a paper and those participating in the discussion are fairly treated, and the fruit of their labors is ensured a larger circulation and an extended usefulness; a greater desire to report cases and results is awakened and wholesome object lessons are learned in investigation, precision, correctness, style and brevity, by knowing that this paper and that discussion will be read and criticised by many.

Many State societies have followed the example set by the societies before mentioned. The old fashioned idea of locking up papers and discussions in the secretary's desk, until such time as that poorly remunerated and overworked official, together with the committee on publication, could have time to arrange and publish them in the proceedings, which usually come out about a year or so afterwards, is a most unprogressive and out-grown old custom. It tends to degeneracy and fogyism in a society. The papers read a year ago look musty when they come out, and if the writer or participant in the discussion could have a chance to revise his remarks (and sometimes he has), much new material would certainly be added, for medicine is making giant strides forward now-a-days, and what was right a year ago, may be very materially changed to-day. We know of some societies where a revision of existing by-laws in this and other particulars would be a step in advance.

AMERICAN CHEMICAL SOCIETY.

Rhode Island Section, by Wm. R. Potter, B. S., Chemist.

THE regular monthly meeting of the R. I. Section of the American Chemical Society was held in Tillinghast's private parlors, 235 Westminster street, Thursday evening, Jan. 19, at 8 o'clock. After the fourteen persons present had practically, rather than scientifically, analyzed the many carbon compounds placed before them in Tillinghast's best style, **Prof. S. P. Sharples**, of Boston, gave a very interesting talk upon "**The Phosphates of South Carolina and Florida**," illustrated with lantern views of the mines and other scenes connected with the same, taken by him while on a recent visit of inspection of the phosphate beds. The Society afterwards extended a vote of thanks to **Prof. Sharples** for his kindness in addressing them on this occasion. The present officers of this section are:

Prof. J. H. Appleton, *President.*

Prof. E. E. Calder, *Secretary and Treasurer.*

This section has at present about twenty members.

A USEFUL INSTITUTION.

A DIRECTORY FOR NURSES was opened last April at 416 Broad street, by our progressive Dr. G. P. Pomroy. Such an institution is highly advantageous to Physicians, Nurses and the general public, and one knows precisely where to go, or where to write or telephone night or day, for Nurses of all descriptions. Much time is gained by the Doctors and much comfort is saved to Nurses who simply record their names under the eligible list, and may thus in peace perhaps enjoy a few days of rest, between hard and wearisome cases, instead of spending their time in letting the world know that they are disengaged. It seems like a pleasant and a most convenient duty to patronize such a useful institution.

ANNUAL ADDRESS.

Delivered before the Washington County Medical Society, at its Annual Meeting held in Westerly, R. I. Thursday, Jan. 5th, 1893, by its President, Dr. John Champlin.

Fellows of the Washington County Medical Society:

To-day you are called upon to mourn the fact that just one year ago you elected to the high office of president of this society, a fellow possessed of few gray hairs and entirely innocent of a bald pate filled with interesting reminiscences of a forty or fifty year's practice, running back to the days when calomel and the lance were king; when the country was sparsely settled, and the doctor with his saddle bags astride his horse, wended his weary way over rocky, hilly roads to see his distant patient; compensation for which he would receive in butter, eggs or potatoes. The good stories (at times spicy), for which old doctors are notorious and which he relates so well to his confreres on these very occasions are to-day conspicuous by their absence.

The past seven years give very little history in the accessories of the practice of medicine not familiar to you all, for we all enjoy the good roads, easy riding carriages, smaller buggy cases made possible by the tablet triturate, and some of us the bicycle and the prescription fad. To sum up the work of this society for the past year is a small task, smaller indeed than I wish it might have been. The Annual, Semi-Annual and Quarterly meetings have been well attended, valuable papers have been read and profitable discussions have followed; especially is this true of the semi-annual meeting which was held at Brightman's Pond, and was attended by the President (*Dr. Palmer*,) and the Secretary (*Dr. White*,) of the State Society, both adding to our store of knowledge of infant feeding, that being the subject of Dr. Smith's able paper.

To-day I present to you the annual address in the shape of a brief paper on surgical dressings. During the past few years no science has approached surgery in its progress, no time or generation has ever witnessed so great strides toward successful operations, and this progress has been made along the line of asepsis and antisepsis.

I will call your attention first to antiseptic dressing. In the treatment of a wound, after hœmorrhage has been checked, and its surface has been cleaned and purified, coaptation has been accomplished and drainage has been provided for, a proper dressing must be applied. Two main objects are to be accomplished by a dressing, first the absorption of whatever secretion may come to the surface; and

second the protection from infection, injury and motion. Septic infection is to be guarded against by covering the parts with soft and absorbent material that will receive and keep antiseptic the discharges that drain away from the wound and that will prevent the access of septic infection from other sources to the wound.

For this purpose many substances have been used; among those most commonly employed are cotton, wool, cheese cloth, jute, oakum, saw-dust, moss, etc. While all these substances are more or less hygroscopic, their usefulness as absorbent dressings depends chiefly on the multitude of minute spaces existing between their meshes or fibers and a certain degree of openess of mesh or looseness of fiber is requisite to enable them continuously to absorb thick and viscid fluids. It is not enough that these materials when applied should be simply sterile, for when they are filled with wound secretions they may then be infected from without and become the medium of conveying infection to the wound. If is better that the inner portions of the dressings themselves should be impregnated with antiseptic materials, which could actively antagonize or inhibit the activity of any septic matter that might gain access to the secretions imbibed by them.

The necessity of this will be realized if the extreme difficulty of sterilizing absolutely the skin of the patient, or the fingers of the surgeon is recalled; for this reason the best results in securing the healing of their wounds, other things being equal, will be obtained by those surgeons who make use of wound dressings containing proper proportions of corrosive sublimate, boracic, salicylic, or carbolic acids, or similar antiseptic agents. By using voluminous dressings, it is possible to give additional security against the conveyance of infection from without to the wound, and to protect it more certainly from mechanical violence and from motion.

Changes of dressings are now made at long intervals, thus giving ideal rest to the injured part, while repair is going on. As to when such changes are required, various considerations must determine the action of the surgeon. The patient's temperature should be especially relied upon as an index of the processes going on in the wound.

If after an elevation of one or two degrees above the normal for the first 48 or 72 hours after a wound has been inflicted and dressed, the temperature sinks to nearly normal and remains there with but slight fluctuation, the surgeon is assured that undisturbed repair is going on in the wound, and that no demand for interference is necessary by reason of anything in the wound itself. If, however, the temperature continues elevated after the first two or three days, or if after having once fallen it again rises, and especially if a series of morning remissions and evening exacerbations show themselves, there is unmistakable evidence that imflammatory and suppurative disturbances, with retention of secretion and absorption are going on, and that a change of dressing with thorough exploration of the wound is required.

When also the external layers of the dressings become moist with the secretion that has been imbibed from within, it is imperative that the dressings be removed; of course this does not apply to the frequent staining of the external layers of the dressing by the copious sero-bloody primary wound secretion, which, when very hygroscopic materials are used, often occurs within a very short time after the dressing is applied. In these cases the dressings quickly become and remain dry, and do not require to be changed.

When drainage tubes are used, it is desirable to remove them within ten days, generally much sooner, for which purpose the dressing must be removed. Tampons which have been used to control hœmorrhage, should be removed on the third day or before; this is another indication to change the dressing.

If the wound becomes the seat of suppuration or of sloughing, dressings should be frequent enough to secure thorough drainage and cleansing of the affected parts.

In general, change of surgical dressings should be as infrequent as possible, and only for the purpose of meeting distinct indications. In changing dressing, the same strict antisepsis should be observed as in the operation itself.

The wound having been dressed, the comfort of the patient should next be looked after by applying warmth to the wounded part and giving it a comfortable position, when quiet, perfect freedom of circulation and control of muscular spasm can be best secured. The position should always be one in which the muscles are relaxed and the return circulation favored. The relation of position to drainage should be kept in mind, and in the arranging of the means for drainage, whenever possible, the drains should be so placed as to be most efficient when the parts shall have been placed in the most comfortable position. Gentle, uniform and continuous pressure is of great value in promoting rapid repair after injury; it restrains excessive local hyperæmia, limits effusion and promotes absorption of effusions already present; it resists muscular spasms, and contributes to rest of the parts.

In order to obtain the full power of compression in the rapid repair of wounds, the pressure must be greater and more even than is required to simply hold on the dressing and maintain the divided edges in coaptation. In most cases compression may be best effected by covering the wounded part with layers of cotton wool or oakum, and apply the bandage firmly. The wool or oakum, by their elasticity, tend to distribute evenly the compression exercised by the bandage and keep the pressure uniform. Wounds in certain locations will require the addition of splints to the dressing, in order to produce immobilization, which is a great aid to the repairative process.

The dry method of dressing wounds is often employed with advantage in small wounds. Iodoform, aristol, salicylate of bismuth, or some other innocuous but antiseptic powder which forms a thin film over the surface of the wound, may be dusted upon it after it has been sutured with silk or cat gut, and thus by inspissating the blood and serum, a dry, antiseptic crust is formed, which, when hard, prevents putrification. As this film is exposed to the air, it soon dries, and the hard, firm crust prevents the entrance of particles of dust into the wound. Under this artificial scab the healing process rapidly progresses. This scab should not be removed, but allowed to fall off, after the part is healed beneath it. I have used this method in very severe compound fractures with the best of results; iodoform was used in each case and the fracture then treated as a simple one.

Healing beneath a moist blood clot is a method adapted to those cases in which there has been a loss of substance in the soft parts and the edges of the wound cannot be brought into apposition. It is also applicable in cases of resection of joints and compound fractures in long bones, where the fractured ends are separated by loss of comminuted fragments. In operations for removal of necrosed bone, this method has many advantages. *Schede* has reintroduced this method, and to him is due the credit of perfecting the technique of a process of repair in cases, in which the healing would never have taken place, or if it had taken place, would have done so very imperfectly. The wound is thoroughly cleansed and made perfectly aseptic and blood is then allowed to fill up the cavity; the blood clot thus formed, affords protection to the raw surfaces of the wound, and if the clot does not contract and desicate on the one hand, or undergo decomposition on the other, it will form a nidus for granulation tissue, which developes and finally cicatrizes. In order to utilize a blood clot for the purpose of healing, it is essential to keep the clot moist. To provide for this, a small strip of rubber tissue or protection is placed over the surface of the wound and made to overlap its edge. This fine rubber tissue should be rendered perfectly aseptic and immersed in carbolic acid solution before its application to the wounded surface. Over the protective a strip of Iodoform gauze may be placed, and

over the Iodoform gauze is placed loosely an abundance of Bi-chloride gauze, which provides ample drainage by absorbing from the wound all surplus serous and hœmorrhagic discharges.

The wounds that are best adapted for this method are those in which the structures and tissues are highly vascular. Tendons, fasciœ and others possessing a low grade of vascularity are not suitable for it. Open wounds should be treated on the same antiseptic plan as closed wounds.

Antisepsis, having revolutionized the surgical world, is no longer a theory, but stands on a firm foundation, accepted by every surgeon the world over and used to the very letter in all the hospitals and clinics on earth.

In spite of all these facts, many old, and some younger physicians in country practice still have a good word for the old fashioned water dressing. It is with a view of a free interchange of ideas on this subject of dressings that this paper was written, and I hope it will not fall short of its object.

FUN AND FORTUNE.

It will require a liberal patronage to support the Monthly, and the more liberal the patronage the better will be the service rendered.

Doctor, when you see the nurse using scorched flour, or some cheap powder, tell her of the soothing effect of "*Compound Talcum Baby Powder*," made by *Julius Fehr, M. D.*, and ask her to try it.

Willis—Happiness comes through mighty little things sometimes.

Wallace—Yes, I have frequently gotten it through a straw.

The Buffum Loan & Trust Co,, of Ocala, Fla., have been loaning money for more than twelve years without loss of a dollar to the investor. Write them for information and mention the Monthly.

Have you used "Glycozone" in Dyspepsia, Gastritis, Etc.? if not, please try it.

When a man goes wrong "there is always a woman at the bottom of it." When a man goes right we never hear that there is a woman at the top of it, but there is. —*Galveston News.*

We have used the elastic goods made by the old *Tivey Elastic Works, S. A. Sylvester, M. D.*, for more than fifteen years, always with satisfaction. When you want anything in their line try them and you will be pleased.

ELECTRIC BATTERIES.

Have you looked into the merits of the Chloride of Silver Dry Cell Battery? These batteries are especially well adapted to family use as well as a portable battery for Physicians' use.

They are always ready. No chemicals needed, and will run for one hundred hours without changing the cell.

Several styles of these as well as other Faradic and Galvanic Batteries are stocked by *George L. Claflin & Co., 56 and 58 South Main street.*

PHYSICIANS' CASES.

A handsome line of Physicians' Buggy and Pocket Cases may be seen at the store of *Geo. L. Claflin & Co., 56 and 58 South Main street.* This firm make a specialty of these goods and those in need of a medicine case of any kind will do well to look over their stock.

Special styles not in stock will be ordered.

PERSONAL INFORMATION.

Our Efficient Health Officer of Providence and City Registrar of Vital Statistics, Dr. C. V. Chapin, has been very ill for the last three months. We are informed that he is now convalescing however, and will probably soon again be seen at his post of duty, to the gratification of his many friends and admirers.

Dr. H. Terry, of Chestnut Street, has gone to Florida on a short and well needed vacation. We wish the Doctor much pleasure and that he may soon return, abler than ever to help us out with our difficult obstetrical cases. Some one whispered the other day that the Doctor might be off:

Swearing till my very roof was dry
With oaths of Love (*Merchant of Venice*);

but we will not speak of such a thing till the Doctor says it's so.

Dr. W. R. White lost his buggy the other day and we extend our sympathy. The Doctor's barn caught fire accidentally, and barn and everything in it was totally destroyed. No insurance. We all know how many patients it takes to pay for a 350-dollar buggy.

Dr. Charles H. Fisher, Sec'y of the State Board of Health, has been sick recently but is now able to attend to the business of the Board as usual, which he has done so ably and well for so many years.

Dr. A. H. Eccleston, formerly of Wood River Junction, has removed to Providence and located on Arch Street. The Doctor has recently been appointed Surgeon to the N. Y., N. H. & H. R. R. and to the U. T. of Artillery. Success Doctor.

MORTALITY REPORT.

State of Rhode Island, January, 1893.

Population, 345,506 (census 1890). Whole number of deceased, 550; Native born, 211; Foreign born, 339; Males, 282; Females, 265. Among the principal causes of death we find: Pneumonia, 75; Bronchial affections, 28; Measles, 11; Typhoid Fever, 3; Consumption, 50; Scarlatina, 11; Diphtheria, 6; Diarrhœal diseases, 6.

Of these the city of Providence furnished with a population of 132,146, (1890): Pneumonia, 42; Consumption, 26; Apoplexy, 19; Diarrhœa, 1; Typhoid Fever, 3; Scarlatina, 8; Heart Diseases, 25; Bronchitis, 17; Cholera Morbus, 13; Gastro Enteritis, 1; Measles, 10; Nephritis, 15.

Total death rate for Providence, 292. Native born, 102; Foreign born, 190; Males, 147; Females, 145.

LITERARY REVIEW—BOOKS RECENTLY PUBLISHED.

A Manual Of The Practice Of Medicine. Prepared especially For Students. By A. A. Stevens, A. M., M. D. Instructor of Physical Diagnosis in the University of Pennsylvania, and Demonstrator of Pathology in the Womans' Medical College, Philadelphia. *Price $2.50.* Published by *W. B. Saunders, 913 Walnut Street, Philadelphia, 1893.*

The author of this little work very modestly considers it an "outline of Practice of Medicine" only, and expresses the truth that we need "books which present their subjects in an assimilable form."

We think he voices the feeling of a majority in the profession in his preface in a very happy manner, for *we do need* to have medicine "boiled down" into a form, where medical students and practitioners with ordinary cortical substances can digest and assimilate it, and this Manual is a veritable little gem, which should be found on the table of every physician; real handy; where he could refer to it at once. It contains 500 pages of the newest, best and most useful material to the practitioner, with a number of excellent therapeutic suggestions and we commend this Manual to every physician as one of the best books of reference of to-day. W. B. Saunders Publishing House has several excellent books in preparation which we will mention in another issue.

A Manual of Medical Jurisprudence and Toxicology, By Henry C. Chapman, M. D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia. *Price $1.25. W. B. Saunders, 913 Walnut Street, Philadelphia, 1892.*

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THE BIG 4!

Columbia, Victor, Hartford and

I am a thorough believer in cycling, and especially for girls and young women. It aids greatly that physical development which we must secure for our American girls or soon do without American mothers.—*J. W. Thayer, M. D., Gilroy, Cal.*

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Everything can be perverted in its uses; the bicycle is no exception; but the benefits to be derived from a proper indulgence in the healthful exercise can be acquired in no other manner. —*A. L. Kistler, M. D., Allentown, Pa.*

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ANNUAL ADDRESS.

BY THE PRESIDENT OF THE PROVIDENCE MEDICAL ASSOCIATION, ROBERT F. NOYES, M. D.

FELLOWS—Another year has gone and once more we are assembled together in this hall for the purpose of reviewing the work of the past and the election of officers for the ensuing year. The former of these duties falls to me, the latter devolves upon you. Both are important and necessary, the one in order that we may justly appreciate our true condition and position and so be the better able to prescribe for ourselves the line of procedure; the other that the duties which are attached to the offices of this deliberative body may be properly performed.

One year ago I was able to write that "our ranks had remained unbroken," but during the year now about to close, it has become my painful duty to officially announce that one of our Fellows has passed to the great beyond. Appropriate and touching resolutions embodying his many sterling qualities of mind and heart and expressing sympathy to his relatives in his native land and to those near and dear to him in the country of his adoption, have been presented to the Association and unanimously adopted. Aside from this painful duty my task during the year has been pleasant.

Resignations have been tendered but these and removals from the city have been more than equalled by admission of candidates to fellowship.

During the year we have assembled ten times in this hall and have begun our session as soon after 8.30 o'clock as it was possible to count a quorum. The greatest number of Fellows present at any one meeting was 45, the smallest number 22. The average attendance has been 29.5, slightly greater than the preceding year, but not quite equal to the year 1891, which showed the greatest average attendance of any year in the history of the association.

The work of the Association has been creditable. It has comprised

papers, reports upon recent progress, presentation of specimens, reports of cases and discussions. Twenty papers or reports have been read before the Association upon as many different subjects. These together with the discussions which have followed, the report of cases, the presentation of specimens and miscellaneous business, have rendered our sessions busy and instructive.

The number of cases reported during the year is, I fear, too few. Not more than 11 cases have been reported and but one specimen has been presented. The failure or neglect of the Fellows to report cases which are continually occuring in their practice deprives the Association of much valuable and interesting information. The report of cases is much like story telling; one case suggests another and so there is the more easily educed valuable experience and practice. A case in practice, too, constitutes an excellent nucleus for a short paper. All are more willing to report a unique case, but are diffident about reporting the more common ones. Unusual cases, of course, are of great interest but it must be remembered that disease presents many phases and that those cases which are the more common, because so often seen, are distinctly educative especially at the present day, when etiology, pathology and prophylaxis play such an important and different role than formerly, and when empiricism is giving way to more exact knowledge.

We have averaged during the year just two papers or reports an evening. These have cost the writers much labor and have contained much valuable information. The appointing of some fellow to open the discussion has added much to the value of our sessions.

In reviewing the work of the year it is almost impossible for me to enter into the minutiæ, or to discriminate as to what has been the most important and, indeed, if either of these were possible, you would soon tire of me and dissent from my judgment.

At the March meeting pharmaceutical chemistry was presented. Two elaborate papers were written upon this subject. Many new drugs were considered and valuable suggestions made. In April, the recent progress in ophthalmology and otology engaged the attention of the Association. The recent and more advanced method of treating trachoma was made known, the present status of cataract operation stated. Different methods of treating perforation of the tympanum was not omitted, and the removal of the ossicles with an improvement in hearing was stated as an advance is otology. Then came an elaborate paper upon laryngology, disease of the ethmoid cells and atrophic rhinitis. The rare disease akromagalia was referred to and followed by the report of a case by another Fellow, and finally, at this meeting, the interesting condition known as aprosexia, associated as it often is with atrophic rhinitis, was discussed.

In May, the writers upon recent progress in Materia Medica and Therapeutics prepared two elaborate and painstaking papers upon the coal tar preparations; many new remedies were considered and their therapeutic indications made known. A synopsis of these papers would require much time.

In June, anæsthetic electricity, a subject entirely new before the Association, was concisely and very nicely presented. The production of local anæsthesia by this method is effected by very rapid vibrations. The writer had succeeded in arranging phospho-bronze between the poles of the battery, and thereby obtained 2,200 vibrations per minute. At this meeting, also, a most interesting and able paper was presented by the writer appointed to report upon the recent progress in mental disease.

Recent progress in the practice of medicine engaged the attention of the Association at the September meeting. Culture experiments in the diagnosis of diphtheria, the determination of the diagnosis of glanders and the manner of establishing tuberculosis in cows, and other matters of interest were elaborated by the author. Then followed a paper upon the very important subject—drug eruptions.

The history, etiology, prevention, quarantine and treatment of Asiatic cholera were given to the Association by papers equal in number to the subjects at the October meeting.

In November two cases of pneumonia without fever and one case of empyema with unique, yet fatal complications, were reported. Recent progress in bacteriology came, too, at that meeting.

The writer upon the recent progress in obstetrics at the December meeting discussed the application of the forceps, the management of placenta prævia, bi-polar version for prolapse of the funis and podalic version for malpositions of the head. At this meeting also hysterectory was described, the *Trendelenberg* table exhibited, and finally, at this session, a most interesting and elaborate paper was volunteered upon the Azores as a health resort.

At the January meeting two cases of Kraurosis Vulvae, one of Addison's disease and one case of prolapse of the funis were reported. A valuable paper entitled, "Preventible Deaths in Childbirth," closed this session and finally in February hypnotism formed the subject of an elaborate and scholarly paper. This, with the animated and learned discussion which followed, rendered this the last meeting of the year particularly interesting and instructive.

This brief and imperfect synopsis of the doings of the Association, clearly indicates that many subjects have been presented; that the work of the Association has been satisfactory, and that no suggestions or recommendations from the president are really indicated.

It is regretted that no more practicable means of preserving the work of the Association than the assiduous and painstaking record of the secretary is possible.

The major portion of the work has been in response to assignments made by the chair, in accordance with the custom which has been in vogue for a number of years, and I am inclined to the opinion that as great a variety of subjects and as much information may be obtained by this as by any other one method, yet it occurs to me that more papers upon special subjects would greatly enhance the value and interest of our sessions.

The By-Laws of the Association, gentlemen, should be revised—these are incomplete, and do not contain the desired information. The record book must be searched by the officers in order to determine what their duties are.

The annual tax for the year now closing has been four dollars. The Association fixes the tax to-night for the ensuing year.

We began last year with a deficit of $22.33. The expenses for the year have been $347.30 which with the deficit referred to amounts to $369.63. All the items of our expense, save one, are fixed and subject to no alteration. One item only, and that of our collations, allows of any elasticity and this for the year is $115.90, which is less than the preceding year by $39.39. Much credit is due the individual members of the collation committee for the acceptable luncheons which they have served, and for the small expense incurred, and if civil service reform is regarded in this Association, their terms of office should be extended one year. This survey clearly indicates that a tax of less than four dollars will not yield funds sufficient to meet the current expenses, and that prompt payment of the tax is necessary in order to keep the treasurer in funds. The Association has not appropriated any money for medical journals during the past year. The depleted condition of the treasury would not admit of such an expenditure. These facts furnish sufficient basis for the Association to determine the amount of the annual tax.

* * *

Fellows of the Association:—For two years you have borne with me as presiding officer. For two years you have responded very generously to the calls I have made upon your time and energy, and for twenty times we have met and performed the duties which have respectively devolved upon us. The advance which the Association has made and its present status are dependent upon you. You have written the papers, reported the cases, discussed the questions and to you the credit belongs. My task has been a pleasant one, and I have gladly and willingly, to the best of my ability, conscious that my short comings

have been conspicuous, performed the onerous duties connected with this honorable office.

Advance by individuals and by societies is very much in proportion to the energy and willingness with which we put our hands to the plough; we must shoulder the responsibilities and perform the duties which come to us during the vicissitudes of life. The consciousness that we cannot reach our ideal, should not deter us in the highway of progress nor induce inactivity. Honesty of purpose and the performance of duties to the best of one's ability, will surely be looked upon with favor by those for whom we need to care. The field of medicine is so vast that no man can understand it all. This is the basis of and reason for specialties. He is the true man who says, I do not know. Nature is unfolding and is being made to discount faster than I can learn. The secret of success is plain and well understood. Dissuade yourself of the idea that your experience, your knowledge, and your cases are of no value. Remember that the different impressions produced by nature upon different minds brushes away much of the dross and uncertainty, when made known by the tongue and by the pen. Congeniality and association are very great powers in the highway of advancement.

To-night the mantle of honor falls upon another and with it the labors and duties connected with this honorable office. For him I bespeak that kind consideration and response to his calls which it has been my privilege to enjoy, and for you I bespeak and can almost vouchsafe, greater advancement than has hitherto fallen to your lot.

OBSTETRICS.

A SUCCESSFUL CASE OF SALINE INFUSION.

(Hypodermoclysis.)

By J. FREDERICK HALLER, A. B., M. D.

Reported before the Rhode Island Medical Society.

THE patient is a married woman about thirty. Has had three children previously with normal labors. Has always been well and strong, save a persistent leucorrhœa and constipation during the last four months. Thinks she became pregnant about three months ago which is substantiated by facts. Was called to see her on the 26th of February, when I found her to be threatened with abortion. From what I could elicit, abortion was brought about by hard work, she having lifted heavy articles of furniture when she said she felt something "give away" and she dates her pains from that moment. Find-

ing upon examination no appreciable dilatation of cervix and no symptoms of immediate danger of abortion, I administered uterine sedatives, (Dioviburnia, Dios. Chem. Co.'s) and ordered her to bed. Visited her daily, finding the cervix still intact and pains decreasing in strength and frequency.

No hœmorrhage had been noticed up to the morning of March 1, when I again made my visit. She got out of bed that morning contrary to my orders and said she had had some severe pains. Upon examination I found the cervix a little more dilated than before but still rigid; no hœmorrhage. I told her strictly to remain in a recumbent position and continue the sedatives. The pains seemed to decrease and I left her, with strict orders to call me at once if the pains should again become severe. It appears that she had not remained in bed, however, but had walked about some, during the day. At 1 o'clock that P. M., severe pains set in, with no hœmorrhage, which continued strong till 4 o'clock, when the fœtus was expelled with a piece of the funis, torn off from the membranes. From this time on she had profuse hœmorrhage, and from some inexcusable neglect I was not called until 6 o'clock that afternoon. When I hurried to the house I found the woman literally in a pool of blood, with almost imperceptible pulse, rapid shallow breathing and an anxious cyanosed face. The membranes still remaining in uterus with a piece of the funis attached. I at once injected a maximum dose hypodermically of normal liquid ergot (Parke, Davis & Co.), with brandy; the hypodermic injections of brandy were continued for some minutes with improvement in pulse and respiration; the hœmorrhage having decreased somewhat after a second hypodermic injection of ergot. After a few minutes Dr. Harvey, who kindly responded promptly to my call for assistance, arrived, and we proceeded at once to clear the uterus having first well cleaned our hands and instruments antiseptically.

One was busy keeping the patient alive with hypodermic stimulation (nourishment by stomach being immediately ejected), while the other was making rapid progress by fingers and a blunt curette clearing the uterus. We finally succeeded in removing the membranes, which came away piece-meal, and the hœmorrhage ceased. No anesthetic was administered, as patient's condition did not warrant it. Uterus and vagina were cleaned with 3% lysol solution and afterwards with hot water and antiseptic pad and T bandage applied. We now attempted to improve the patient's condition (her pulse being exceedingly poor and frequent attacks of threatened syncope occurring) by rectal alimentation as well as nourishment per orum; both failed, however, and we were forced to continue hypodermic stimulation. We now injected $\frac{1}{30}$ gr. of sulphate of strychnine with brandy. This seemed to revive her

almost magically and she improved much and seemed so comfortable, that Dr. Harvey returned home. She rested quiet until about 10 o'clock when she suddenly awoke from a light slumber by cries, of "I am dying; I can't breathe; everything looks black; help, etc." Her pulse had again become unperceptible, heart's action feeble and rapid, respiration quick and labored and she had all symptoms of impending syncope and death. I thought of Thrombosis and Embollism as the patient had Cheyne-Stokes breathing, but discarded the idea, as there was no headache, numbness and tingling in the extremities, aphasia, rise in temperature, loss of consciousness or paralysis.

A second hypodermic injection of sulphate of strychnine $\frac{1}{60}$ gr. with brandy, was tried with but momentary effect. Equally ineffective were caffeine hypodermically, brandy, petonized beef and hot water per rectum. Ammonia and ether inhalations and everything else tried.

Here was a patient, with no seeming organic disease, dying from functional disturbances, namely, that the heart did not have sufficient fluid to contract upon. I thought of *R. H. M. Dawbarn's* reports of introducing saline solutions of water direct into the circulation through the femoral artery, reported in the *Medical Record* some time ago; and the *Two Cases of Successful Saline Infusion* reported in the same paper Jan. 7, 1893, by *E. Sternberger*, who injected the fluid into the left median cephalic vein. I put 3 pints of hot water about 118° F. into a clean vessel and added to it common cooking salt to make about 7 parts in 1,000. I carefully strained the solution through a clean cotton cloth, having no time to filter it.

I selected my largest hypodermic needle and slipped the soft rubber tube of my Davidson's syringe over it, tying it with a piece of silk; the syringe had first been well cleaned out in hot water. I filled the syringe full and allowed the solution to flow through it (to exclude air) while I injected the fluid slowly into the cellular tissue of the thighs, abdomen and scapular regions. Nearly 40 minutes time was taken in injecting the fluid. It was all absorbed, apparently, ten minutes after injection, from the vigorous massage I subjected the places to. The effect of this treatment was marvellous, and was the nearest thing to a resurrection from the dead I have ever seen. The pulse grew strong, full and steady, the heart returned to its normal action, breathing became free and easy, and the patient who shortly before was nearly dead, now spoke of how comfortable she was, and went into a well needed sleep, which lasted for four hours, and was only disturbed by waking up to take warm milk and brandy in small quantities.

The quality of the pulse was not satisfactory half an hour after the first infusion, so I injected one quart more of the solution, which made the quantity injected 5 pints altogether.

The after treatment consisted of strychnine, caffeine, milk, *Reed & Carnricks liquid beef peptonoids* in such proportions as the stomach would tolerate. On the following day, March 2, the pulse was 100; temperature 99°F, evening pulse and temperature somewhat increased; general condition good, except slight inflammation of arms where the muscular tissue had been pierced with hypodermic needle, when injecting brandy. Vaginal irrigations of hot lysol solution were used twice daily with antiseptic pad over vulvæ.

March 3, pulse 120; temperature 100°F, some headache, 3i of paraldehyde administered for sleep.

March 4, pulse 98; temperature 99; no other abnormal symptoms; vaginal irrigation continued; also liquid nourishment.

March 5, pulse 72: temperature 98; no unusual lochial discharge; vaginal irrigations of plain hot water were continued twice daily; no other trouble except pain in arms before spoken of. From this time on, there was nothing abnormal in her condition and she was rapidly convalescing under iron, quinine and strychnine mixture, with milk and beef-peptonoids (Reed & Carnricks.)

On March 10 she was allowed to sit up and partake of some solid food and is now a well woman.

* * *

I cannot conclude this report without alluding to the records of cases of this kind, and an appeal to professional men to try this mode of treatment in suitable cases.

Drs. Bernatzik and Vogl of Vienna in their text-book on *Arzneimittellehre*, speak of *V. Ziemssens* many experiences with infusion of defibrinated blood direct into the circulation, in acute and pernicious anæmia.

Also of the reports of *Cantani*, *Samuel* and others who have used the salt water infusion (hypodermoclysis) in several cases of cholera with good results. They recommend a solution of 6 parts of common salt in 1,000 of distilled water and 1 part in 1,000 of bicarbonate of soda; also massage of the parts injected to favor absorption, which usually takes place in 15 minutes, (10 minutes in my case.) As far back as 1830, Russian and Scotch physicians have tried injections of watery solutions direct into the veins, but *Hayem of Paris* was the first one, I believe, to use it methodically, during the cholera epidemic in Paris in 1884.

Hayems infusion had the following composition:

Aqua Dest.	gm. 1000
Natr. Chlorid, ...	gm. 5
Natr. Sulphat.	gm. 10

The fluid had a temperature of 38° C. and 2—2 1-2 liter were injected

into the veins in the arms (the cephalic), or in the limbs (the saphenous.) "When the patients are in complete collapse with no pulse, no voice, and the eyelids half-closed over their atonic eyes, it seems," says Hayem, "like a resurrection from the dead.

As soon as a certain amount has been injected through the veins, the eyes open and tears are produced and they show signs of returning life. To the patient it seems like awakening from a dream and consciousness returns. The cyanotic color of the face disappears, the pulse can be felt, the voice returns and the patients declare they are feeling better and ask for something to drink." In some cases the improvement was only temporary, however; a new infusion was then tried, and if this failed to revive them the chance of saving them was very small indeed.

Hayem's results were not very encouraging, however. Of ninety patients treated in this manner (for cholera) twenty-seven recovered and sixty-three died.

Besides, this method is so complicated that it can only come into general use in hospitals, where there are suitable conditions and skilled assistants. *Dr. Edgren* before the *Swedish Medical Association, August, 1892, Hygiea, Stockholm.*

Cantani was the first one to name it *hypodermoclysis*, I believe, and he used:

Aqua Dest.	gm. 1000
Cooking Salt, ...	gm. 4
Bi-carbonate of Soda	gm. 3

The fluid was heated to 38—40° C. and injected hypodermically into the scapular, gluteal and lumbo-abdominal regions. One liter of this was injected every fifteen minutes until improvement followed.

Cantani has a better percentage. Of 187 patients so treated, 114 recovered and 73 died, which makes the percentage of recoveries about 61 per cent. and the mortality 39 per cent., not a bad result, says *Edgren*, when we think of *Griesinger's* opinion, that 80 per cent. of asphyxiated cases die (in cholera).

V. Ziemssen speaks highly of this treatment. He thinks that the physician might carry the salts with him as well as a suitable syringe and canula, properly cleaned. He advocates constant massage during the injection of the solution, and thinks that 1 1-2 liter can be injected in 2 or 3 different places in this manner in 15 minutes and be quickly absorbed. *Cantani* had an apparatus made for this purpose.

Keppler, of Venice, used with much satisfaction, 7 parts cooking salt in 1,000 parts distilled water and 10 parts absolute alcohol.

R. H. M. Dawbarn, of New York, was the first one, I believe, among American surgeons, to suggest the introduction of the saline solution

into the femoral artery by using an ordinary hypodermic needle and a Davidson's syringe. Two cases were also reported by *E. Sternberger* this year, as before mentioned, where the fluid was injected into the median cephalic vein (Hayem's practice).

I cannot now think of any more cases reported by American surgeons. While it is unsafe, always, to form any conclusion from one or a few cases, one is certainly justified in trying this mode of treatment in cases of acute and pernicious anœmia, severe hœmorrhages and cases of cholera, should that dreaded disease appear among us this season. By observing due cleanliness and caution in its administration, using massage to favor absorption, and gentle stimulation with sulphate of strychnine and caffeine to tone up the heart, any physician need have no fears in using it, for the result he may obtain, more than outweighs the dangers of infection, etc., if that result is as prompt and satisfactory as it was in my case, for I feel that it saved this patient's life.

BACTERIOLOGY.

A SIMPLE METHOD AND A CHEAP APPARATUS TO REMOVE DISEASE-GERMS FROM DRINKING WATER.

IT IS a well-known fact that water mixed with alum becomes clear and free from germs. But alum is mostly added to the water in such a large amount that the dissolved alum causes indigestion very often. To find the proper amount of alum, V. and A. Babes have made careful experiments. They found that by adding 0.15—0.25 grams powdered alum to a liter of the dirtiest water, the latter came out quite clear and free from germs, and yet the water did not contain any dangerous and noticeable quantities of alum.

They also treated water with iron sulphate and calcium carbonate. By adding 0.25 gram of these salts to a liter of water, the latter was completely purified.

In order to use this method for the household V. and A. Babes propose a very simple apparatus, namely: a vessel (made of glass or zinc, in the shape of an Erlenmeyer flask, and holding 20–40 liters), with a hole in the bottom. In this hole a glass tube fitted with a cork is fixed by means of a perforated rubber-stopper. The tube is 5 cm. at the opening in the flask. After having filled the vessel with water and added 3–5 gram of alum or iron sulphate and calcium carbonate, the whole is mixed thoroughly. Then the apparatus is closed and allowed to stand. After 18–20 hours the water can be used by opening the cock. (*Centralblatt f. Bacteriologie 12.132.*) *E. Lesser.*

GYNECOLOGY.

By GEO. W. PORTER, A. M., M. D.

Presented before the Providence Medical Association.

THE first specimen is a fibroid of the uterus, removed by laparotomy about five weeks ago. The patient was sent to me by Dr. Harris, of Chepachet the first of September, with the growth projecting forwards from the anterior surface of the body of the uterus, the chief symptoms being pressure on the bladder, and weight in the pelvis, giving considerable discomfort and interfering with her ordinary labors. I treated her regularly from that time till the operation, keeping her more comfortable by supporting the uterus with tampons of cotton. The growth continued to increase in size, being about twice as large at time of operation as when first seen. It is, as you see, about the size of a mandarin orange.

The operation was done at the R. I. Hospital, January 25th. The growth was found to be connected with the uterus by a short, thick, fibrous pedicle, about an inch in diameter.

A circular incision was made in the fibrous capsule around the tumor, about an inch from the pedicle, and the tumor easily enucleated. There were no large blood vessels. Several small blood vessels were ligatured with cat-gut. On bringing together the fibrous envelope, considerable free bleeding was caused by one of the needle punctures, which did not cease readily. Accordingly the pelvis was packed anteriorly to the uterus with sterilized gauze, one end of which was left projecting from the lower angle of the wound in the abdominal wall. This checked the bleeding perfectly, and was removed the next day.

The patient has made a very satisfactory convalescence, with the exception of some chest trouble which developed a day or two after the operation, and has now subsided.

The second specimen is a dermoid ovarian tumor, removed eleven days ago. I was called to see her in consultation with Dr. Morrison two weeks ago to-night, and found that she had been confined in another state eight months before, and was now three months pregnant, again.

A month before her confinement she complained of severe pain in her right side, which lasted many weeks after, and she has felt there was something wrong there ever since, though she had been able to be about some till she developed acute peritonitis about two weeks before I saw her, with high temperature, vomiting, etc. There was a good sized tumor on the right side, excessively tender, and the patient seemed in a very dangerous condition.

Though a very unpromising case, I felt something must be done speedily or she could not live. Accordingly, a laparotomy was done three days later. The tumor was found universally adherent to the anterior abdominal wall, omentum and intestines, except on its posterior surface. The surface of the tumor was covered with greenish lymph, and the coils of intestines glued together. The pedicle was twisted two full turns on itself, and with the lower part of the tumor was perfectly black from effused blood. After breaking up the adhesions, and untwisting the pedicle, the pedicle was found so short that there was barely space to draw the ligature between the tumor and the horn of the enlarged uterus. Fortunately, none of the contents of the tumor escaped into the peritoneal cavity, and the wound was closed without washing out or drainage.

The vomiting ceased at once, and has not returned except a little on the second night after operation. She has done very well in all respects, and has had no threatening of miscarriage. Her appetite has been excellent. After the first few days she insisted on having solid food, and has taken it safely. Her temperature since the second day after operation has never been above 99°.

The contents of the tumor consisted of a chocolate colored fluid,—no free oily fat,—a large amount of sebaceous matter, and a large wad of very light colored hair. The patient's hair is black. The inner surface of the tumor has small calcified outgrowths in about twenty places, to which the sebaceous matter is closely adherent, and from which hair is developed, thus differing from other dermoids I have operated on, where the hair came from one piliferous nipple.

At one place on the interior of the cyst wall there was developed what looked exactly like a mamma, with nipple, areola, etc. The weight of the tumor was 10 lbs.

SURGERY.

A CASE OF INTERMITTENT NEURALGIA OF SUPERORBITAL, AND OF UNUSUAL SEVERITY.

W. E. WILSON, M. D.

PATIENT is 31, American, book-keeper, in every respect perfectly healthy. Has had attacks of neuralgia at 14, 17, 19, 23 and 28 years, each attack coming on in the early morning and lasting from one to one and one-half hours. Usually, recovery would take

place in two weeks. At first, home remedies were used, but as the attacks grew more severe he consulted physicians.

A prominent oculist ordered glasses, another applied electricity, the latter causing him, as he thinks, more suffering. Tonics afforded some relief, but the hypodermic injection of morphine only gave him prompt freedom from pain.

He first consulted me in August. He had then been suffering for four weeks and was exhausted from want of sleep. The periodical feature of the disease suggested malaria to me. I put him on Quinine and Arsenic. Forty grains of the former had no effect and from one paroxysm per day the number increased to five. The amount of morphine taken was 5-6 grs. hypodermically daily. Having myself but little faith in further medication, to reach the trouble with the discouraged condition of my patient, I suggested neurotomy, to which he immediately assented. His appearance indicated great suffering. The upper lid was swollen and the conjunctiva injected. Theo peration was simple. An incision about one inch long (after shaving off eyebrows) easily disclosed the nerve, which was pulled out from its sheath and one-half inch removed. Relief was immediate. I saw him about two weeks ago and found that he had an area of anasthesia corresponding to the part covering the left parietal and half frontal bones.

Superficial neuralgias are, at best, one of the most intractable forms of disease with which we have to deal. It is a disease in which no known pathological condition exists. Autopsies show frequently an increase of contractions in the nerves, but this is considered rather an effect than a cause. About every known disease, atmospheric condition, food, drink, tobacco, sexual excitement (gratified or suppressed), drug, injuries, peripheral irritation of any kind,—all are ascribed as causes. But, aside from malaria, anæmia, traumatism, syphilis and atmospheric conditions, we know very little of the etiology. The so-called reflex neuralgias are to be regarded with suspicion. It is to be regretted that a disease attended by such disastrous consequences should be so shrouded in ignorance. Sciatica may cripple a patient for life, angina pectoris cause immediate death, and neuralgia of the ovary (if we accept the testimony of the gynecologist), produce such dire results as to cause the possessor to regard that organ a curse rather than a blessing. That the suffering is extreme is shown by the willingness of the patient to submit to the most severe operations which afford even only temporary relief. In a series of twenty-two cases of section of the nerve with removal of Meckel's ganglion, in only three was relief permanent. And when we consider that the patient may lose the use of muscles on that side of the face, the sense of taste and of sight, it leaves but little choice between two evils. In the excision of the superior branch there

is little damage to be apprehended and so much relief afforded that even if there is a return of the disease, I conclude from the testimony of the patient that it is not only justifiable but to be earnestly recommended.

The patient states that before the operation he wore his hair in the style termed Pompadour, but since then he finds that over the area of anasthesia it will not stand up.

KOCHER'S METHOD OF REDUCING A SUBGLENOID DISLOCATION OF THE SHOULDER JOINT.

Bend the arm to a right angle and place the elbow against the side, then turn the hand and arm outward as far as they will go, and whilst in this position bring the arm forward until it reaches the median line. This will open wide the rent in the capsule. Now force the hand back on the *opposite* shoulder, in which manner it will almost invariably slip in place and generally this result occurs before the final motion is made.

By this method the shoulder can usually be reduced without anæsthesia and without great pain to the patient.—*Atlanta Medical and Surgical Journal.*

THERAPEUTICS.

CAMPHORIC ACID IN NIGHT SWEATS OF PHTHISIS.

A. B. BRIGGS, M. D.

CAMPHORIC acid occurs in thin flakes or colorless needles It is made by heating camphor with ten times its weight of nitric acid. It is slightly soluble in cold water, freely soluble in ether, alcohol and the fatty acids. The dose is from 10 to 30 grains, usually administered as a powder on the tongue, followed by a little water; a good way to give it is in 10 grain capsules, but as its taste is not objectionable, patients do not demur in taking it as a powder. Leu* has given the acid in 30 grain doses to phthisical patients suffering with night sweats and always with good results. He finds it much more satisfactory than atropia and has never seen disagreeable symptoms follow its use. The largest amount he has given in any one case was 75 grains before the sweating was controlled.

Hare† reports its use in ten cases and extols its virtues very highly;

* Leu, Abstract in the Year-Book of Treatment, 1891.

† Hare, *Medical News*, April 4, 1891.

with him it has never failed. In one case of advanced phthisis, after other anti-sudorific remedies had failed, a dose of 20 grains of camphoric acid given one hour before the usual time of sweating, controlled the symptom entirely; after this a single dose every 24 or 48 hours was all that was required. He claims to have had good results from its use in the sweating of nervous exhaustion and general debility.

Hartlieb † reports thirteen cases of phthisis with night sweats in which he exhibited the drug, in 12 of which the sweating was entirely controlled. He usually found 15 grains sufficient, but in some cases 30 grains were required.

James Wood § has used camphoric acid in a large number of cases of phthisis, always with good results. In his cases there was invariably a cessation of the sweats, whether the physical condition of the patient improved or not. He thinks the best way to administer the acid is in 20 grain doses from four to six hours before the time of the expected sweating.

Howard ‖ reports eight cases of phthisis with night sweats, treated by him with camphoric acid at St. Joseph's Hospital in April, May and June, 1892. In five there was a complete control of the symptom, in two the sweats were controlled, while in one, a case of chronic tuberculosis of both lungs and cavity formation, accompanied by acute alcoholism; there was incomplete control. In most of these cases he gave at first a small dose (10 grains), some four or five hours before the expected time of sweating. This dose while it usually diminished the sweating, was not sufficient to control it; larger doses of 20 grains were followed by satisfactory results. He found that when once the system was under the influence of the drug, sweating did not recur for some time, and that then smaller doses given at irregular intervals were sufficient to hold the sweats in check. In no case did he get any gastric disturbance or other disagreeable symptoms; the only secretory glands that seemed to be affected by the drug were the sweat glands. A study of the charts of these cases did not show any appreciable change in the temperature, pulse or respiration that could be attributed to the influence of the acid; beyond the relief of a disagreeable and distressing symptom, the drug seemed entirely without influence over the course of the disease. As far as determined, the drug was perfectly harmless and its administration was not followed by any deleterious action upon the system.

All observers call attention to the fact that the drug does not cause the unpleasant symptoms, such as dryness of the throat, feverishness of the skin, etc., so common after the use of belladonna.

† Hartlieb, Abstract in the Year-Book of Treatment, 1891.

§ Wood, *Medical News*, March 12, 1892.

‖ Howard, *Maryland Medical Journal*, Feb. 18, 1893.

THE TREATMENT OF BURNS WITH THIOL.

According to the investigation of A. Bidder, we possess in thiol a good remedy for burned and scalded wounds. Thiol not only keeps the wound thoroughly aseptic, but it has a strong influence in setting up a healthy reaction and healing without producing the least irritation of the parts.

The wounds are completely brushed with thiolum liquidum (diluted with about the same portion of water) and then covered with a thick layer of gauze and other protecting dressings.

Even in cases that tend to slough, from previous poor treatment, thiol may be used with great advantage. (*A. Bidder, Langenbecks Monatshefte 92. 30. E. Lesser.*)

SALOLUM IN CHOLERA ASIATIA.

According to the reports of Prof. Lowenthal salolum has been used with great success as specificum against cholera on the Phillipine Islands. Of 53 cholera cases treated with salolum only three ended fatally.

Salolum was administered every hour or half an hour in doses of O,5—1 gm., gm. 1 having been given for the first dose. (*Pharmaceutische Zeitschrift 37.17, E. Lesser.*)

DENTISTRY.

LANDS' METHOD OF PORCELAIN FILLINGS.

By COURTLAND J. ALLEN, D. D. S.

THE subject of the so-called Lands' system of porcelain work is so broad, including as it does porcelain fillings, bridge work and his Jacket and Dowel crown with many modifications, that I shall only dwell upon that portion of it in which I have had some experience, mainly, porcelain fillings, merely touching on the Dowel crown.

The first thing to be considered in a porcelain filling, as in any other, is the preparation of the cavity.

Inlays proper which belong to that class of cavities which involve one surface only, should have no undercuts, but perfectly perpendicular walls, with no beveled edges; for the latter leave the edges of the inlay

fraïl and liable to fracture while being placed in position, thus leaving them ragged, and consequenty, perceptible.

In cavities with more than one surface involved, the rule of undercutting holds good with porcelain, as with any other filling material, for the platinum (which I shall describe later on), although being more or less burnished into the undercuts, yields sufficiently for easy withdrawal.

The preparation of this series of cavities (that is, those which, when filled, would come under the head of contours), is similar to those prepared for gold, with one exception, and that exception must always be borne in mind; namely: *That the edges must not be beveled*, and it is much more important to observe this rule in this case than in the simple inlays, for more strain is brought to bear on them, especially when they involve the cutting edges.

After the cavity is prepared, a piece of platinum somewhat larger than the cavity, is cut from a sheet rolled very thin and perfectly annealed by heating in the platinum muffle for about two minutes, to an incandescent heat. The piece of platinum in question is then burnished carefully into the cavity, taking care not to break by too hard pressure, at least not until the edges are well defined and burnished until smooth.

In very deep cavities the platinum is sure to break, and always at the deepest point, but here it does not matter, for the body, if not too moist, will have no tendency to slip through the crevices.

A homely but effectual instrument for holding the platinum in position while burnishing, is an ordinary pencil with a rubber imbedded in the top. After an accurate impression is obtained with the platinum, and a suitable color selected, the body is mixed to a consistency of paste by the addition of water, and, with a long handled brush, dropped into the impression. I say long handled, because a more delicate touch may be secured, than with a short one.

It may be well to add here that the color should not be selected under the rubber dam, because of the bleaching effect perfect dryness has upon a tooth.

The impression or matrix, which is held with a pair of sharp straight nosed pliers, is then partially filled with body.

On tapping the pliers gently with the brush handle, the superfluous moisture comes to the surface, and is removed by a piece of blotting paper; this is done repeatedly, more body being added from time to time until the mass becomes dense and nearly dry.

Care must be exercised, however, at this juncture to leave the surface just moist enough for a gloss. Too much moisture results in a porous inlay. The body is then ready for the first bake.

In placing it in the muffle care must be taken not to place it too far, and in heating not to heat too rapidly. Failure to observe these precautions will result in a blowing or a bursting of the body from the matrix, due to the too rapid vaporization of the water.

When the moisture is thoroughly dried out, the matrix and its contents are placed at the hottest point, which is just back of the centre of the muffle, and kept at a white heat from 1 1-2 to 2 1-2 minutes. This is for the *first bake*, a biscuit being all that is necessary. By biscuit is meant a fusion of the mass without the gloss. It is then removed and allowed to cool.

The surplus platinum is now clipped off, leaving just enough to burnish over the edges of the cavity. If too much is left one portion is liable to rise slightly while another is being burnished, which results in poor edges.

During the second burnishing the porcelain may chip or crumble at the edges, but no attention may be paid to this, for the next bake remedies it.

The matrix with its bruised contents is then removed, more body being added wherever needed, condensed by tapping as heretofore mentioned, placed in the muffle and kept at a white heat from 2 1-2 to 4 minutes according to the gas pressure.

In the second bake the inlay should remain in, until the body loses its rough appearance, and gradually become smooth and glossy.

To see this it is advisable to wear smoked glasses, as without them, the glare of the hot muffle is liable to injure the eyes.

Occasional removal of the inlay for inspection during the bake does not, I find, seem to injure it, and it is better to risk any slight injure which may possibly result from so doing, than to allow the work to by burned. A burned inlay may be recognized by its total absence of color, its marked porousness and crumbling character, making it entirely unfit for service.

As a rule for small work two bakes are sufficient, but for large contours, three and even four are sometimes found necessary for a satisfactory result. After the final bake the inlay is removed and the platinum carefully peeled off.

It is especially necessary in thin inlays that all the platinum be removed, for any little specks that remain give it a spotted appearance after being set.

With a thin corundum wheel or diamond disc, which should be used for nothing else on account of the danger of soiling the inlay, undercuts are made in every position possible on the posterior surface.

In very delicate structures when undercuts cannot be obtained, the surface may be roughened and then the porcelain is ready to set.

With any good cement mixed thin but thoroughly incorporated, the inlay is pressed into position, allowed to harden, and the edges polished with a fine sand paper disc. If the result is not then satisfactory to the operator let him return to the old method of grinding in inlays, which event will never occur if the new method is given a fair trial.

One other form of inlay, besides the two mentioned, is one which is very serviceable but less ornamental. It is used more exclusively in molars and differs from the others only in the manner in which it is set. The inlay when apparently ready for undercuts and setting, has all its surfaces excepting, of course, the face, painted with what is is known as "Roman Gold." The same mixture that is used by artists in gilding china ware. It is then placed in the muffle and subjected to heat sufficient to turn the gold mixture, which is of a brownish hue, to the color of pure gold, and is allowed to remain at this temperature for about one minute and then removed.

A thin mix of amalgam is made which is thoroughly amalgamated with the gold on the porcelain. The undercuts in the cavity are then filled and the inlay, which now contains a portion of soft amalgam, clings to it, is pressed firmly into the cavity and allowed to harden. This makes a filling that is absolutely impervious to moisture, and almost indestructible.

In many contours and tips it is often necessary to strengthen them by the addition of platinum pins. The impression is taken in the usual way and the pin, pushed through the platinum when still in the cavity. It is then carefully removed and enough body fused to the matrix to secure the pins, after which, the proces is identical with the making of an ordinary inlay.

With a few words regarding the crown I will conclude my remarks. The formation of the "Land Dowel Crown" differs materially from that of any other. The root is trimmed in the usual way, excepting that it is left slightly convex. A "Howe Post," after being covered with cement, is securely screwed into the root, and allowed to set, after which it is trimmed. A pin is then seen projecting from the root. With a pair of excising forceps all is clipped off but about 3-16 of an inch. A piece of platinum considerably larger than the exposed root is cut, and a hole made in the centre, the size of the post used in the root. Then, around an extra "Howe Post" a second piece of platinum about 1-4 of an inch square is twisted, making a cylinder with a trifle larger diameter than the post. The first piece containing the hole is then pushed over the cylinder and soldered at the end with pure gold. The cap thus formed, slips nicely over the pin and the piece of flat platinum is burnished to the end of the root until a perfect impression of it is obtained. A porcelain veneer of the right size, shape and color is

selected and with a little body is attached to the cap in a position to suit the operator. It is then removed and caught permanently by a partial bake in the furnace. After cooling, the surplus platinum, both from the cylinder and diaphragm, is removed, burnished again to the root, and the proper contour given it. Several bakes are generally necessary for good results, but the crown, if properly made, fits the root accurately, and will in every way prove satisfactory. The bodies I use in this work are numbers 1, 2, 3, 4 and 5, Wilmington make, but any medium fusing body will answer. These five mixed in varying proportions are sufficient for most any color desired. I have tried both Parker's and Closes' but both are too high fusing.

The "Jacket Crown" was also the method of firing gold fillings on artificial teeth, in reality come under the subject on which I have written, but as I have already taken up too much time of the Society, I will reserve these for some time in the future.

MEDICAL JURISPRUDENCE.

State of Rhode Island and Providence Plantations.

JANUARY SESSION, A. D. 1893.

An Act to Regulate the Practice of Medicine in the State of Rhode Island, Introduced in the State Senate by Senator Comstock, of Providence, and Referred to the Committee on Judiciary.

It is enacted by the General Assembly as follows:

Section 1. It shall be unlawful for any person to practice medicine in any of its various branches unless he be a registered physician.

Sec. 2. Any person who desires to practice medicine in any of its departments, perform surgical operations, prescribe for the sick or wounded, cure or pretend to cure by any commonly recognized or special means, for fee or reward, shall appear before any person legally qualified to take depositions and make an affidavit, setting forth the following facts:

His full name, the date and place of his birth. Date of graduation and the locality and name of the medical college from which he graduated, if he be a graduate; that the diploma, if he has any, is a bona fide certificate, and conferred upon him by the institution named therein; if not a graduate, he shall state if he has attended lectures at any

medical school in this country or elsewhere, when, where, and how long; also if he has received any other instructions by anyone which tend to qualify him as a practitioner of medicine, the date and place where he began practicing medicine in Rhode Island, and the names of the places where he may have previously practiced medicine or surgery. Any person who shall in the affidavit required by this section make any false statement, shall be deemed guilty of the crime of perjury and shall be punished according to law.

Sec. 3. Having made affidavit, as prescribed in the foregoing section, he shall thereupon present said affidavit to the secretary of state, together with his diploma, if he has any, either in person or by messenger. The secretary of state shall keep a book or books for the purpose of recording such affidavits; he shall endorse on such affidavit, over his signature, the date when the same was presented for record, and the book and page on which it is recorded. The secretary of state shall record all the facts contained in said affidavit, arrange the names alphabetically, and keep a complete list of all the names so presented, in the book or books before mentioned, and to be called "Book (or Books) of Registry of Medical Practitioners." He shall thereupon issue a license to the person making such application, and shall therefor receive a fee of one dollar, and this book or books of registry shall at all times be open to public inspection. The secretary of state shall preserve all such affidavits.

Sec. 4. The secretary of state shall issue licenses on blanks prepared as follows:

I do hereby certify that is a graduate of that he has Diploma from and that he has complied with the requirements of Chapter of the laws of the state of Rhode Island relating to the practice of medicine and surgery, and is hereby authorized to practice medicine and surgery within this state in accordance with the provisions of the aforesaid chapter. (seal) Providence, R. I.

Secretary of State.

Sec. 5. The physician to whom a license is issued shall cause such license to be placed and maintained in some conspicuous place in his office.

Sec. 6. The certificate of the secretary of state, as to any matter of record of the book or books of registry of medical practitioners, or the non-existence of any such record, as to which said secretary may be called upon to testify in his official capacity, shall be admissible evidence in any court of this state of the existence or non-existence of such matter. Said secretary shall be paid the sum of fifty cents for every certificate, which sum shall be taxed in the costs of any proceed-

ings pending in any court in which the same shall be offered as evidence.

Sec. 7. Every person not a registered physician, who shall for gain advise or treat in any manner any person suffering, or supposed to be suffering, from any mental or physical derangement, or who shall for gain advise or attend any woman in labor, or who shall for gain in any manner imply a willingness to so advise, treat or attend any person, or who shall take, use or exhibit the title of registered physician, and any person who shall violate any of the provisions of this act, shall, upon the first conviction be fined fifty dollars, and upon the second and every subsequent conviction shall be fined one hundred dollars, and all fines recovered shall inure, one-half thereof to the use of the state, and one-half thereof to the use of the complainant.

Sec. 8. Nothing in this act shall be so construed as to prohibit or debar persons from practicing dentistry or pharmacy, nor shall this act apply to the commissioned surgeons of the United States Army, Navy or Marine Hospital service, or physicians and surgeons called in from other states in actual consultation with a registered physician of this state.

Sec. 9. All acts and parts of acts inconsistent herewith are hereby repealed, and this act shall take effect sixty days from its passage.

ELEVENTH INTERNATIONAL MEDICAL CONGRESS.

ROME, ITALY, SEPT. 24th—OCT. 1st, 1893.

AMERICAN NATIONAL COMMITTEE.

W. T. Briggs, Nashville, Tenn.,
H. P. Bowditch, Boston, Mass.,
S. C. Busey, Washington, D. C.,
C. Cushing, San Francisco, Cal.,
N. S. Davis, Chicago, Ill.,
Norman W. Kingsley, D. D. C., New York,
Wm. Osler, Baltimore, Md.,
Wm. Pepper, Philadelphia, Pa.,
F. Peyre Porcher, Charleston, S. C.,
Charles A. L. Reed, Cincinnati, O.,
D. B. St. John Roosa, New York,
Alex. J. C. Skene, Brooklyn, N. Y.,
James Stewart, Montreal, Can.

A. JACOBI, 110 W. 34th St., New York, *Chairman.*

New York, February, 1893.

In a letter dated Genoa, January 24, 1893, the Secretary-General of the Eleventh International Congress, Professor E. Maragliano, directs the undersigned Chairman of the American National Committee to request the Editors of the Medical Journals of America, to kindly give the greatest possible publicity to the preliminary programme and the regulations emanating from the Italian Central Committee, which I herewith have the honor to transmit.

In so doing I take the liberty of again drawing the attention of the Gentlemen who intend to participate in the Congress to the following: It is the earnest wish of the Central Committee to receive *applications at an early date.* The admission

fee of five dollars may be sent to the Treasurer, Professor L. Pagliani, Rome, Italy; in return, the Ticket of membership will be forwarded. It is requested that a visiting card, containing name and address, be sent with each application, to facilitate exact spelling. *The undersigned Chairman offers his services to whosoever will direct him to forward both application and fee.*

Attention is also directed to Article II, of the Regulations, according to which papers must be announced at headquarters, on or before June 30th, and abstracts be received on or before the 31st of July.

Very respectfully,

A. JACOBI, *Chairman*,
110 West 34th Street, New York.

The Inauguration of the Eleventh International Congress will take place the 24th of September, 1893, in the presence of H. M. the King of Italy.

The Work of the Congress will begin in the nineteen sections on the morning of the 25th of September. It will be continued in accordance with the arrangements to be made and published both for the general sessions and the sections. Some of the general sessions will be devoted to scientific addresses delivered by scientists of all nations.

LIST OF THE SERIES.

1. Anatomy.
2. Physiology.
3. General Pathology and Pathological Anatomy.
4. Pharmacology.
5. Internal Medicine.
6. Diseases of Children.
7. Psychiatry, Neuropathology and Criminal Anthropology.
8. Surgery and Orthopedy.
9. Obstetrics and Gynæcology.
10. Laryngology.
11. Otology.
12. Ophthalmology.
13. Odontology.
14. Military Medicine and Surgery.
15. Hygiene.
16. Sanitary Engineering.
17. Dermatology and Syphilidology.
18. Forensic Medicine.
19. Hydrology and Climatology.

REGULATIONS.

1. The Eleventh International Congress of Medicine will be inaugurated in Rome, on the 24th of September, 1893, and will close on the 1st of October.

2. Any physician may become an active member of the Congress by fulfilling the conditions of membership, inscribing his name, and securing his admission ticket.

3. Scientists of other professions who, through their special studies, are interested in the labors of the Congress, may acquire the rights and assume the duties of active members, and participate in the work of the Congress, both by communications and discussions.

4. The fee for admission to the Congress is twenty-five francs, or five dollars.* It entitles to a copy of the Transactions of the Congress, which will be forwarded to the members immediately after publication.

5. The character of the Congress is strictly and exclusively scientific.

6. The work of the Congress will be divided amongst nineteen sections; every member is requested to indicate, on paying his admission fee, the section for which he desires to be inscribed.

*Money order or check to the Treasurer, Professor Comm. L. Pagliani, Rome, Italy.

7. The provisional committee will arrange the appointment, in the opening session, of the permanent officers. They will be a president, three vice-presidents, a number of honorary presidents and secretaries. Each section will elect, in its first meeting, its president and a certain number of honorary presidents, who shall alternately take the chair during the session. Some of the secretaries will be chosen from among the foreign members in order to facilitate the recording both of communications and of discussions in the different languages.

8. There will be daily sessions, either general or sectional. The times and numbers of the general sessions, and the business to be transacted in them will be arranged by the President of the Congress.

9. The general sessions are reserved, (*a*) for the consideration of the common work of the Congress and of its common interests, (*b*) for addresses and communications of general interest and importance.

10. The addresses in the general sessions, and in such extraordinary sessions as may be arranged, will be delivered by members chosen by the committee for the purpose.

11. Papers for and communications to the Congress must be announced on or before June 30, 1893. A brief abstract of every paper and communication, with their conclusions, must be sent to the committee on or before July 31st. All of them will be printed and distributed to the members by authority of the President. Such as arrive after that date cannot be expected to find a place on the regular order of business, and will be accepted only if time will permit.

12. The business of the sections will be arranged by their presidents, who will also determine the hours of meeting, avoiding those reserved for the general sessions. Two or more sections may hold joint meetings with the consent of their presidents. There will be no vote on scientific questions.

13. Fifteen minutes are allowed for the reading of a paper or communication. In the discussion every speaker can have the floor but once, and for five minutes only. To close the discussion the author of the paper is allowed ten minutes. Additional time may be given him by the president, by special resolution of the section, if the importance of the subject under discussion appear to require it.

14. The manuscript of all addresses, papers and communications read either before a general session or a section must be handed to the secretary before the close of the meeting. A special committee on publication appointed by the president will decide, which or what part of them shall be published in the Transactions of the Congress. Such members as participated in the discussions are required to hand to the secretaries their remarks, in writing.

15. The official languages of the sessions are Italian, French, English and German. The regulations, programmes and daily bulletins will be published in the above four languages. During the meetings, however, a member may be permitted to use, for a brief remark, any other language provided some member present expresses his willingness to translate such remarks into any of the official languages.

16. The president directs the discussions according to the parliamentary rules generally obeyed in similar assemblies.

17. Persons not classified under Article 3, who are interested in the labors of a special section, may be admitted by the president of the Congress. They will receive a special ticket on paying their admission fee; will not be entitled to a copy of the Transactions; and cannot speak in the general sessions nor in any section other than that for which they were inscribed.

18. The president may invite or admit students of medicine to attend and to listen. They will be given a special admission ticket, free of charge.

GENERAL INFORMATION.

Journeys and Reduction of Fares.—The provisional committee has made arrangements with the different Italian and foreign railway and navigation companies, in pursuance whereof special reduced prices have been granted on the steamers and railways of this country and of the countries which the members of the Congress are to traverse.

In Italy the members of Congress will find tickets for round trips, starting from Rome; they will thereby be enabled to visit the most important cities and the various universities. In regard to this, further notice will be given.

The Ladies of the Members will be furnished ladies' tickets, which will entitle them to the reduced fares granted to the members, and to participate in the festivities connected with the Congress.

Festivities.—Besides the receptions which the kind and hospitable citizens of Rome will offer to the members, the Italian colleagues will endeavor to return to the best of their power, the kindness they experienced during their stay abroad.

On some evening yet to be decided, the members of the different sections will join at a dinner which will be given in one of the first hotels of Rome.

The Italian physicians have formed special committees to show the most hearty and kindly hospitality towards the foreign colleagues.

International Exhibition of Medicine and Hygiene.—On the occasion of the Eleventh International Medical Congress, an Exhibition of Medicine and Hygiene will be inaugurated in Rome, which will gather all that may practically interest physicians and specialists. A special committee has already insured the co-operation of all the most important manufacturers of the world.

Hotels.—All the first and second-class hotels of the Italian capital will afford to the members, during their stay, all desirable comforts.

PHARMACY.

BASHAM'S MIXTURE.

THIS preparation has always given the pharmacist more or less trouble in preparing. The principal cause of the mixture turning out a great many times to be a most unsightly one, is in the preliminary preparation of the solution of acetate of ammonium. The U. S. P. directs twenty parts of this to be used in making one hundred parts of the mixture.

This same solution of acetate of ammonium is a preparation which, in nine cases out of ten, is improperly made, being in some instances kept in stock, instead of being freshly prepared as it should be. It is largely made by adding the carbonate of ammonium directly to the dilute acetic acid. How many pharmacists are particular about the exact strength of their acid?

How many take the pains to scrape off any bi-carbonate or acid carbonate of ammonium, which may have formed on the carbonate of am-

monium by reasons of being exposed to air, before using? *This should always be done* in this or any other preparation containing it.

How many test the acidity of the solution of acetate of ammonium, after being satisfied in their own mind that the preparation is neutral or slightly acid?

I have found in my experience that the best way of making liquor ammonium acetatis, is by keeping, already prepared, in separate bottles, two Troy ounces of "Squibbs" carbonate of ammonium dissolved in one pint of distilled water and four and three-quarters fluid ounces of acetic acid (36%) dissolved in enough distilled water to make one pint.

Authority for making the liquor in this manner is found in the U. S. P. and, if the ingredients have been carefully measured out, and are *up to strength*, equal quantities of each solution will form a neutral liquor ammonium acetatis. It should then be tested with test paper.

This, as I said before, is the most important step in making mistura ferri et ammonii acetatis. The tincture chloride of iron should then be added gradually and the other ingredients in their respective order, this will insure a perfectly clear and elegant preparation.

One great objection to this preparation is that it will not keep any length of time, sometimes not long enough for the patient to consume eight ounces at the rate of one and one-half ounces a day. In *Merck's Report* some time since, I saw a note suggesting the substitution of pure glycerine for the syrup. I was asked the question, would it still be the officinal preparation should the glycerine be substituted? I answered that in the strict sense it would *not* be the officinal preparation, *but*, I did not think any physician would question the right of the pharmacist in substituting if it would improve the stability of the mixture without injuring its medicinal value.

With a view of ascertaining just how far glycerine acted as a preservative in this case, I prepared on February 10, 1893, four samples, four ounces each, all from the same materials, numbering them 1, 2, 3 and 4.

Number 1. The officinal way of preparing.

Number 2. The officinal preparation with the exception of adding the water.

Number 3. The officinal formula, using pure glycerine instead of syrup.

Number 4. The officinal formula, using pure glycerine instead of syrup and not adding the water.

The samples were placed on a shelf on the prescription counter subject to changes in temperature and light.

On February 15th, they were examined for the first time and with the exception of number 1 were found to be perfectly clear; in number 1 a slight cloudiness was observed.

February 19. They were again examined and a dirty brown precipitate to the extent of nearly half an inch was found to have formed in sample number 1, the others still as clear as when made.

February 21. The precipitate in number 1 was found to have increased slightly, while the clear liquid was found to be much lighter in color and a very slight cloudiness was found in number 3, numbers 2 and 4 being perfectly clear.

February 24. All remain the same as in the previous examination.

March 1. No change in appearance.

March 10. The date of writing the samples have stood a month. Number 1 has nearly three quarters of an inch of muddy brown sediment, while the clear portion of the liquid is very much lighter in color. Number 2 has a slight sediment and cloudiness. Number 3 has slight traces of sediment, no cloudiness. Number 4 is perfectly clear and bright as the day it was made.

My experiments prove to me that the substitution of pure glycerine for syrup is a great improvement and that the mixture may be made with glycerine and keep in good condition for a long time, adding the water at the time of dispensing.

NOTES.

A Death Sentence on Flies.—The police authorities of a town in Prussia are said to have issued a Proclamation against flies (*Med. Rec.*). The decree states that, inasmuch as flies contribute to the spreading of cholera, citizens are commanded to exert themselves to the utmost to destroy all flies within their houses. The proprietors of beer saloons are ordered to keep fly-catchers on their counters. The penalty for not killing all the flies possible is a fine of $7.50 for each offence, and continued neglect will be punished by imprisonment.

Mistura Glycyrrhizæ Composita.—The following method of making the above, yields a preparation affording no sediment whatever, as proven by my experiments:

℞	Acaciæ pulv	℥ ss
	Ext. Glycyrrhizæ pulv	℥ ss
	Sacchari pulv	℥ ss
	Spts. Ætheris Nit	f℥ ss
	Vin. Antimonii	f℥ j
	Tinct. Opii Camph	f℥ ij
	Aquæ dest	f℥ xij

Having well mixed the powders, add six fluid ounces of water gradually, and rub to a paste. Place this in an evaporating dish and heat until perfectly fluid. Add the sweet spirits of nitre, wine of antimony and paregoric and enough water to make the required amount.

The heat employed destroys molecular aggregation, otherwise not effected, and results in better and perfect diffusion of the solid substances, and gives a product devoid of sediment.—*Walter L. Stephen, in Am. Jour. Phar.*

A new pharmaceutical institute was opened recently in Copenhagen. It is located in the newer portion of the city, in the vicinity of the chemical laboratory, the Polytechnic, the museums and other institutions of learning. It is a three-story building with laboratories on the ground floor and on the first floor, each accommodating 50 students. The lecture-room is on the second floor, and will accommodate over 100 students. The building is so arranged that it can be enlarged as it becomes necessary. The costs was about 200,000 crowns. There are six professors, two of chemistry, one each of physics, of pharmacognosy, of botany and of pharmacy, and no assistants. The curriculum covers fourteen months, but requires very close application. The king and the royal family were present at the opening exercises.—*Canadian Druggist.*

Note on Hammond's Mixture.—In the *National Formulary* we find the formula for making diluted phosphoric acid containing the meta-phosphoric acid for use in making Hammond's Mixture, and in the pharmaceutical journals we have seen from time to time recommendations to substitute meta-phosphoric acid for ortho-phosphoric acid in dispensing that mixture, because the pyrophosphate of iron is soluble in meta-phosphoric acid but insoluble in official acid. Hammond's Mixture consists of pyrophosphate of iron, diluted phosphoric acid, sulphate of quinine, sulphate of strychnine, water and syrup of ginger. But if it is right to substitute meta-phosphoric acid for ortho-phosphoric acid (and I can see no objection to it), why is it not equally proper to substitute scaled or soluble phosphate of iron in place of the pyrophosphate and using the official diluted phosphoric acid which dissolves the phosphate, although it does not dissolve the pyrophosphate of iron? The solution obtained will be just as clear as in the other case, and this plan relieves us of the necessity of making a special diluted phosphoric acid for this purpose.—*Oscar Oldberg in the Apothecary.*

Articles that are in any way dangerous or offensive, also patent medicines, nostrums, and empirical preparations whose ingredients are concealed, will not be admitted to the World's Columbian Exposition.

The Mortar and Pestle Club recently formed in this State, for social and mutual benefit, is rapidly gaining in membership. It is only a matter of a few weeks before every enterprising pharmacist in the state will be enrolled in its membership. Let the good work go on.

Acetanilid will appear in the revised edition of the United States Pharmacopœa. The Pharmacopœal convention refused to recognize antipyrin and other new chemicals because they are manufactured under copyrighted processes. We do not know what the United States Pharmacopœa will say about acetanilid, but the new German pharmacopœa has been published. It will therefore be of general interest to know what the new German authority prescribes, viz.:

"A colorless, shining crystal, without odor, with a slight burning taste, melting at 113° C. and boiling at 295° C. One part will dissolve in 194 parts of cold, in about eighteen parts of boiling water, and in three and one-half parts alcohol. Easily soluble in either ether or chloroform. Solutions are neutral. A cold saturated watery solution, decomposed with a solution of ferric chloride will not change the color of the latter. Heated with a solution of potash, acetanilid develops aromatic smelling fumes, and with the addition of a few drops of chloroform after renewed heating, the nauseous odor of isonitril is evolved.

One gram acetanilid, boiled for one minute with one ccm. of muriatic acid should give a clear solution, which, after addition of two ccm. of carbolic acid solution acquires a brownish red color after addition of a chlorinated lime solution; this color, after a thorough saturation with liquid ammonia, should turn into a permanent indigo blue.

When heated, acetanild should leave no residue. In sulphuric acid it should dissolve after shaking without discoloring. It should be kept carefully. Largest size dose, 0.5 grams. Limit of doses for one day 4.0 grams."—*Meyer Bros., Druggists.*

PREPARATION OF CANTHARIDINE AND CANTHARIDE PLASTER.

THE cantharides are first powdered, then treated with acid and extracted with acetic ether. The extraction is evaporated to dryness and the fat removed by petroleum-ether, whereupon the resinous parts are extracted by alcohol. The raw cantharidine thus prepared is finally refined by crystallizing.

To prepare "Emplastrum Cantharidum Ordinarium" the following mode may be followed: 525 grams yellow wax in a porcelain dish is melted on a water-bath, then 100 grams olive oil and a mixture of 1 gram sulphuric acid (sp. gr. 1,838), and 10 grams alcohol (90 per cent.) and finally 250 grams cantharides, well powdered, added. The whole mixture remains about two hours on the water-bath at a temperature of 60-70° C, whereupon a trituration of 2 grams barium carbonate and 6 grams alcohol (90 per cent.) are added. (*Helfenberger Annalen, 1893, E. Lesser.*)

PREPARATION OF DERMATOL-GAUZE.

In order to prepare a useful dermatol-gauze, 800 cc. benzol and 400 cc. ethylic ether are well mixed in a bottle; then 25cc. vaseline and 5 grams elemi-resin are dissolved in this mixture. To 120cc. of this solution contained in a porcelain dish, 5 gm. dermatol is added by stirring. When the dermatol is well taken up the solution is to to be completely absorbed by gauze (1m. × 80cm.). After drying the gauze thus prepared, it is preserved in thick vellum. The gauze may be dried without any disadvantage in the sun. (*Fr. Gay, Bull. Soc. roy. de Pharm. de Bruxelles, 36.284, Lesser.*)

To remove the objectionable odor of iodoform German pharmacists add some laurel-oil to iodoform before dispensing it. (*Pharmaceutische Zeitschrift 37. 396, E. Lesser.*)

IMPORTANT INFORMATION REGARDING GLYCOZONE.

GLYCOZONE is a staple compound resulting from the chemical reaction which takes place when C. P. glycerine is submitted, under special conditions, to the action of fifteen times its own volume of ozone, under normal atmospheric pressure at a temperature of O° C.

The presence of water (and other foreign substances) in the glycerine, changes the nature of this reaction, so that instead of producing glycozone, we obtain formic acid, glyceric acid and other secondary products having deleterious effects upon the animal cells.

Glycozone, being hydroscopic, must be tightly corked, so as to avoid being deteriorated by the moisture contained in the atmosphere.

Although glycozone absorbs water readily, it does not deteriorate when kept at a temperature of 110 degrees F as long as it retains its proper anhydrous condition.

The therapeutic properties of glycozone and Marchand's peroxide of hydrogen (medicinal) differ in the following particulars:

Peroxide of hydrogen (medicinal) instantly destroys the morbid elements of diseased surfaces of the skin or of the mucous membrane with which it comes in contact, leaving the tissues beneath, in a healthy condition.

On the contrary, glycozone acts more slowly, but not less certain as a stimulant to healthy granulations. Its healing action upon diseased mucous membrane is powerful and harmless in the treatment of inflammatory diseases of the stomach. In such cases it gives an immediate relief to the patient.

In chronic inflammation of the intestines, a rectal injection administered every day with a mixture composed of

℞ Glycozone . . . . . ℥ 1
Lukewarm water . . . . . ℥ 12

soon relieves obstinate conditions.

A syringe made exclusively of hard rubber or glass, should be used in all instances where either peroxide of hydrogen (medicinal), or glycozone is used as an enema.

After any diseased or suppurating surface has been cleansed by peroxide of hydrogen (medicinal), the application of glycozone stimulates healthy action, and accelerates a cure.

General Directions for Use.—Glycozone may be given for diseases of the stomach, in doses of one or two teaspoonfuls in a wine-glassful of water immediately after each meal. In catarrhal diseases, it should be applied in full strength as often as required.

As an application to wounds and suppurating surfaces it should be used without dilution.

Caution.—Glycozone is a peculiar chemical compound, and not a mixture of peroxide of hydrogen (medicinal) with glycerine.

These two liquids when mixed do not form a stable product, but develop substances which have injurious effects upon animal cells.

Such a mixture when freshly made, has no healing properties similar to glycozone. On the contrary glycozone is stable, harmless and effective.

"Darling, how have you been to-day?"

"Oh, nervous, debilitated, sick and unhappy."

"Heavens! You've been reading those medicine advertisements again, I'll bet a hat."—*Judge.*

DERMATOLOGY.

FROM THE SECOND INTERNATIONAL CONGRESS OF DERMATOLOGY.

VIENNA, SEPTEMBER 5-10, 1892.

AMONG the many interesting papers and discussions at this Congress the discussion by *Neisser* (Breslau), of gonorrhœa and its treatment, are particularly interesting. *Neisser's* original researches into this disease, and his discovery of the gonococcus have given him world wide fame and respect.

I. The importance and frequency of gonorrhœal diseases in men, but particularly in women is so alarmingly great, that it is very desirable that every physician, and not only specialists, should be able to apply a rational treatment, and should also endeavor to bring about rational prophylaxis by inspection.

II. All sensible prophylaxis and therapy depend upon the admission, that the gonococcus is the cause of gonorrhœal infection and the possibility of locating the seat of inflammation in every stage of the disease. A positive diagnosis is, however, in many acute, and in all sub-acute and chronic cases impossible, without microscopical examination of the discharge and the presence of the gonococcus. The microscopical examination *alone*, is, especially in women, entirely worthless. Microscopical examination for gonococci, if made several times, makes a *positive diagnosis possible* in *almost every case*. To grow the cocci in culture-medium is hardly practical enough and only suitable for scientific researches.

III. The danger in gonorrhœa is :

1. That the gonorrhœal poison and its products do not remain localized in the original seat of infection, but

(a) spread, in man, into the deeper portions of the urethra, the testicles, the prostate glands and the bladder, etc.

(b) in women into the uterus, tubes, ovaries and neighboring parts of the peritoneum.

2. That the gonorrhœal poison in the later stages of the disease, spreads into the deeper epithelial layers.

This extension of the poison to the external as well as the deeper parts, makes it possible for the virus to be lodged in places where it cannot be reached, and the formation of a *chronic place of infection* is the result.

Consequently, it is *only in the first stages* that the virus is to be found in such places (in the anterior portion of urethra in men, in the urethra, vagina and cervix in women) in the external layers of the epithelium, that it can, easily, especially in men, be reached and treated by the patient himself. The therapeutical indications in gonorrhœa are, therefore, to prevent a urethritis ant. from becoming a urethritis post. and a gonorrhœa acuta from progressing into a gonorrhœa chronica. Treatment ought therefore to be instituted at once, after infection, and yet, only after observing the following rules :

IV. Only such remedies should be used, which

(a) Kill the gonococci.

(b) Produce as little inflammation as possible.

(c) Cause no deleterious changes in the mucous membrane itself.

Remedies recommended:

Argent. nitras. 1: 4,000—1: 2,000. Ammon. sulpho-ichthyolici 1: 100. Hydrarg. chlor. corros. 1: 30,000—1: 20,000.

Unsuitable remedies are: Those that simply act as astringents, (where there is danger of carrying the infection in with the injection).

Dangerous are (in the first stage): Strong concentrated irritating solutions (danger of producing strictures); also most mechanical means such as endoscopy, catheterization, passing bougies, etc.

V. *The best mode of treatment* in the early stage, is a frequent irrigation of the urethra, intended to reach all folds and points of the urethral mucous membrane. For practical reasons the treatment in men—owing to the enormous frequency of the disease—irrigation should be changed for injections, carefully made, with a large and well-made syringe.

In women, mechanical methods, (wiping the urethra and cervix dry) must be used together with irrigations and douches.

Internal remedies are unnecessary, says *Neiser*, except that they do some good towards helping the suppuration and subjective troubles.

General hygienic, dietetic, and local anti-phlogistic means, are very useful.

VI. In all cases, not really acute, it is necessary to ascertain, whether there is already a urethritis post. or not, and if there are gonococci in the secretions.

The presence or absence of cocci, should determine whether a urethritis post. needs local treatment or not.

VII. The time of treatment should not be determined by the momentary effect of the remedies, which very often shows itself quite rapidly; the treatment should be continued for a long time, though with mild remedies. *It is not the rapid—but the permanent result,—which ought to be the end sought in the treatment.*

VIII. If there are still gonococci in the secretions (in men) from urethra ant. or post., they should be destroyed by irrigations or Guyon's instillations.

If a chronic urethritis is no longer gonorrhœal, the pathological changes in mucosa and submucosa should decide *if*, and *which* treatment, should be instituted.

In most cases, the changes are so trifling, that N. recommends irrigation and instillation only, *and advises against all further treatment.*

More deep-seated changes in the mucous membrane, must be determined and localized with (bougies, sounds or endoscopy) and *require* energetic treatment, (dilatation, massage, caustics, etc).

IX. The treatment of gonorrhœa in the female is much more difficult than in men.

Without continuous microscopical examination of the secretions it is impossible to judge of the therapeutic result.

Fresh urethral—and cervical gonorrhœa, must be treated as early and as energetically as possible, on account of the possibility of its extension into uterine–, tubal–, ovarian–or peritoneal infection which cannot easily be treated, and seldom with much prospect of cure. Often, radical operations are the only means of cure.

X. The not *infrequent* appearance of *gonorrhœa of the rectum*, should receive more attention than formerly, inasmuch as it seems to be the starting point of many chronic ulcers etz.

Ehrman (Vienna) had made experiments, which proved, that there are complications of urethritis, which are not caused by gonococci, but come from other irritation.

Lang (Vienna) supported the views of Neisser, and said that stricture and ulceration of rectum is oftener caused by gonorrhœa than we usually believe.

Welander (Stockholm) spoke of his abortive treatment.

After drying the anterior part of the urethra with a club-shaped sound covered

with absorbent cotton, especially fossa navicularis, 15–20 minims of a 2–3% solution of nitrate of silver is injected and kept in for a few minutes. This treatment is continued on the following days. In no case so treated had any damage to the patient occurred. The only unpleasantness about it, was a smarting in the anterior portion of the tube for the first and second day, during urination. If this treatment is used before the gonococci have penetrated the epithelial layers, it is possible to abort the gonorrhœa.

Of 2,124 sick females, who had visited Prof. *Schautas* polyclinic during the past eleven months, secondary gonorrhœal diseases were diagnosed in 376, or about 18%. The ascending gonorrhœa is so typical, that it can be diagnosed without a microscopical examination. The infection of the mucous membrane of the cervix and corpus makes itself manifest by sharp pain in the small of the back and increased secretion.

If this affection of the mucous membrane should grow more severe, there will be disordered catamenia, profuse bleeding and sharp colicky pains, the latter are particularly diagnostic if the appendages are affected. Sterility is very often a result of gonorrhœa.

Schauta (Vienna) spoke of the great importance that the discovery of the gonococcus played in our knowledge of disease of the uterine appendages. Gonorrhœa in females is a terrible disease, and is in the later stages often incurable.

In affections of the appendages operation is quite favorable; in 200 operations performed by *Schauta*, there had been only 3% mortality. The results had been permanent.

(*Reported by M. Moller in Hygiea, Stockholm, December, 1892, from Arch f. Derm. u. Syph. 1892, H. 6. Translated by J. Frederick Haller.*

POINTED PARAGRAPHS.

THE KEELEY CURE INSTITUTES.

Going, going, going and gone! Advertisements similar to the following may now be found in the current daily newspapers:

At 42 South Curtis Street, this Tuesday morning, 10 o'clock, auction sale, contents Keeley Institute. Iron bedsteads, hair mattresses, good bedding, sheets, blankets, slips, etc., etc. Folding beds, office furniture, range, plated ware, crockery, etc., etc. Sale peremptory. Elison Flersheim & Co., Auctioneers.

The sustaining efforts of Parson Talmage, the gullible press and philanthropic spasms of Keeley himself were not sufficient to sustain the fad for the half of a half decade.—*Journal American Medical Association.*

We have had some opportunities to look into so-called "cures of drunkenness" by "gold" and other means, and if you take out the suggestion—part of the treatment, the apo-morphine to make them believe they vomit the spirits, and the little stomach tonics and laxatives, there is no more left of the wonderful "cure" than was left of the man who swallowed an ounce of dynamite by mistake.—[Editor.

Plaintiff's Attorney—I've an expert who will swear he is insane.

Defendant's Attorney—I've an expert who will swear he is of sound mind.

Plaintiff's Attorney—Then let's pair off on experts and save that much money

The R. I. Medical Science Monthly.

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We have a number of Associate Editors in America and Europe whose names will be inserted in future issues.

All communications to this Journal of any nature whatsoever, whether Letters, Exchanges, Books or Pamphlets for Review, or anything intended for the Editorial or Business Department, **should be addressed exclusively to**

J. FREDERICK HALLER, A. B., M. D.,

MANAGING EDITOR,

271 Washington Street, Providence, R. I., U. S. A.

Books and monographs, native and foreign, on any of the Medical Sciences, will be reviewed without fail, according to their merits and the space at disposal.

Alterations in the proof involving an excessive amount of work, will be charged to authors at the rate of 60 cents an hour.

Contributors desiring Reprints or Extra Copies of the Journal can obtain them at reasonable rates by application to the Business Department immediately upon the acceptance of the article.

EDITORIAL.

OUR readers will please notice the full and complete reports of societies in this and last month's issues. We have incurred the expense of providing expert stenographers so as to obtain the proceedings complete. It has been done at great cost and is an evidence of our desire to do our part to make the Monthly thoroughly representative. Will you do yours?

That talk, indulged in by some, that there are too many medical journals, is all nonsense. Every medical publication fills a place some-

where in the home circle, at least, that could not be filled as well by any other publication.

A medical journal in the community has usually a stimulating influence on the profession; it looks after the little lights as well as the big ones, and the sayings and doings of both are recorded impartially; it brings to light many worthy papers, discussions and transactions, which would otherwise be lost to the outside world; it is one of the best cures for degeneracy of societies and individuals and promotes investigation, progress and timely reform. But there is lots of hard work connected with it, however, and considerable expense; and a little encouragement in the form of paid-up subscriptions with some kind words now and then, will make us forget the hard work and the expense, and our sweetest smiles will be bestowed upon those who treat us the best.

OUR CORNER.

The State Society has every reason to be proud of its newly-elected president, Dr. R. F. Noyes. Dr. Noyes' fine qualities as presiding officer are so well appreciated by everybody, that we only have to say amen to this generally prevailing opinion. He is quick, polite, firm and scholarly, and we predict that during his reign this powerful medical fraternity will flourish greatly. About the outgoing president, Dr. Wm. H. Palmer, we cannot but voice the general feeling that he has been one of the best presidents the Society ever had. It was a pleasure, a rare treat to hear Dr. Palmer's powerful voice, clear cut sentences and polished and well rounded expressions as the head of the institution, and his courtesy, ability and broad-mindedness will linger in our memories when many other things will be forgotten.

The advancement of Dr. E. P. Clarke to the first vice-presidency, was eminently appropriate, for Dr. Clarke is a gentleman most genial, courteous and popular, and he makes every member feel at home.

The second vice-president, Dr. Gorton, is a rising Alienist and Neurologist at the head of one of our public institutions and as we become more acquainted, his good qualities will no doubt come out.

For years, Drs. W. R. White and Geo. D. Hersey have handled the immense work of the secretary's office with signal ability and satisfaction, and their re-election is a fitting tribute from an appreciative body of Fellows. We think the Monthly will lighten the burden of the secretaries immensely by its full stenographic reports of the meetings.

At the right of the president sits a well dressed, clean shaved gentleman, in glasses, who has become so associated with our ideas of a well managed medical society, that should he not tap us gently on the shoulder occasionally, in the due performance of his Call-ins, we would be apt to do the same as some of our patients do, forget that society privileges are to be paid for. How is it that we have heard so little from the able pen and oratory of Dr. Collins lately? We are not always content with the negro's expression, "Happy are those who don't expect nuffing for they ain't gwine

to be deceived." We do expect much from men of Dr. Collins' intellectual capacity, and cannot afford to let him become a disinterested spectator only.

And then we have the standing committees, with their burdens and trials, of which we have some experience.

The Newport physicians were conspicuously absent this time, but we suppose they were "froze out," just as so many others were, in this terrible winter we have had, the bay has been unnavigable, and the way by rail *via* Wickford, being an exceedingly tedious route for busy doctors.

The Monthly got a goodly number of subscribers added to its list, and still they come, which proves that the physicians appreciate our efforts to please them. That dollar and a half you know, is such an important little factor in our success, so do not delay any longer, but send it in now, please.

In January last a lady, patient of C. T. Gardner, was admitted to the Homœopathic Hospital of this city for operation on a fibroma, and Dr. Gardner consented to perform the operation at the hospital, assisted most ably by Drs. Peck and Hayes, our stalwart champions of small dosage and respected brothers of homœopathic fame. The operation was successful, but it was not that we wish to mention, for Dr. Gardner's operations are usually successful, so much as the fact that a regular practitioner consented to, and was allowed to operate on *one of his own patients in a Homœopathic institution.* What will dogmatic expounders of medical ethics say about such transgression of holy usages? We will not venture to express our opinion, but simply record this extraordinary occurence, and wonder how many will exclaim in holy horror, "*O tempora, O mores.*"

We all know that the Pawtuxet water is vile stuff, unfit to drink for a good, sober people like the citizens of Providence. We have talked, and written about it till we got quite tired of water, and were looking about for something else to drink. Then the City Council came to the rescue and appointed a committee of five, two lawyers, one carriage-dealer, one clothing dealer and one broker, to examine into the matter and suggest a remedy. The committee worked hard and to the best of their ability, and made a report that was very good, for people who never had any experience in such matters and be it recorded to their credit, that they did their best. Especial credit is due to the Chairman Mr. Barney for he did most of the work on the committee. But the Council decided that the improvement of our water supply should be placed in experienced hands and so this resolution was passed Feb. 20 by the council:

Resolved, That the Commissioner of Public Works be and he is hereby directed to contract for a suitable system of mechanical gravity filters, capable of filtering 15,000,000 gallons per day, at a cost not to exceed $100,000, provided this system of filtration is recommended by the Superintendent of Health, the Commissioner of Public Works and the City Engineer; and

Resolved, That the Commissioner of Public Works be and he hereby is directed to construct suitable foundations and buildings to receive and contain such filters, at an expense not to exceed $30,000, in accordance with plans and specifications to be furnished by the City Engineer; and

Resolved, That the Commissioner of Public Works be and he hereby is directed to contract for pneumatic air lifts, of a capacity of 15,000,000 gallons per day, and at a cost not to exceed $50,000, provided such pneumatic air lifts, as a means of lifting

water, are recommended by the Superintendent of Health, the City Engineer and the Commissioner of Public Works ; and

Resolved, That for the purpose of carrying the aforesaid resolutions into effect the sum of $180,000 is hereby added to the appropriation for the construction of the Providence Water Works, and the City Treasurer, acting under the advice of the joint standing committee on finance, is hereby authorized to hire the same.

We hope Dr. Chapin will soon be able to take charge of this important matter. It is quite customary to decide questions of this kind without the advice of experienced sanitarians, and always results in such blunders as that gigantic work of stupidity, when the sewers were turned into the cove-basin. We are glad the Council has left the matter in the hands of a commission from which, with Dr. Chapin at the head of it, we may expect good work.

The State Medical Societies of our neighboring states, Massachusetts and Connecticut, have some commendable rules ; particularly that one, of having a vice-president elected from each county. Why should not the R. I. State Society have the same? It would certainly give more satisfaction than the present system of having one 1st and one 2d vice-president. We hate to see so many able men from Newport, Bristol, Kent and Washington Counties, "waste their fragrance on the desert air," when they might be honored with a vice-presidency at least, and the possibility of being promoted to the presidency.

The Monthly will accept only respectable advertisers of established reputation. Our readers can therefore peruse our advertising columns with perfect safety and *we invite you to do so often*, for it is very instructive reading.

When you get the Monthly please look it over carefully. Do not look for faults only, for no one is infallible, but try to think how very nice it is to have a home journal and what it costs to publish it.

You would not believe it, but it is nevertheless true, that in these enlightened days there is some one who doubts the value of Jenner's discovery of vaccination. We thought Jenner's fame was firmly established as well as the great principles of his discovery, and that no one would question this clinically and biologically proven truth. But there is a regular Wouter van Twiller (doubter), right here in the city of Providence. There is such a person, a manufacturer, who spends considerable time and not a little money to make people believe Jenner was a humbug and his discovery a fad. By the way, this man is not too old to die of smallpox yet. His face is familiar in our legislative halls where he has been attentive for the last ten years, obstructing all kinds of progressive measures. He is one of those few individuals who have never been sick and don't believe in doctors. Wonder how he would feel on the subject if he should pass a gallstone for instance, only a small one, about ten to fifteen grains or so ; or if he should happen to have a good biliary colic or gastralgia! We think Jenner and his followers of to-day would have a rest for a while then.

Alte soll man ehren,
Junge soll man bekehren;
Weise soll man fragen,
Narren vertragen.

Is it not about time for our professional brethren to revive the interest in our State Society Library and Museum? Those who have money to spare, and bequeath large

sums to homeless cats and dogs, should remember that these two features of our State Society need encouragement. It is a veritable shame that so little interest is shown for these worthy institutions. Contributions come in very slowly and far between, and a general apathy in this respect prevails. Everybody ought to take a pride in our Medical Library at least, and what is most needed is money and books and medical publications; if we have these there will be readers enough. Who will start the ball rolling by a handsome contribution to the Medical Library of the State Society? and if you have more money to spare, think of the Museum. We hope we are speaking to the living and not to the dead.

Occasionally, a generous deed is done and we are forcibly reminded that:

Res est ingeniosa dare.—*Ovid*

The handsome gift from Mrs. Radeke, of our late beloved Dr. Radeke's entire library to the State Society, is a noble and commendable act, for which we ought to be very grateful. Besides this, Mrs. Radeke has very generously promised to have all pamphlets at the Society Library bound at her expense.

The annual meeting of the Providence Medical Association was held this month and officers elected for the ensuing year. Everything went on harmoniously and peacefully.

Dr. Noyes, who has conducted the Society for the last two years most ably, wished to be relieved, and Dr. F. B. Fuller, the vice-president, was elected president. We have the highest regard for Dr. Fuller's scholarly attainments and worth, and the Society is to be congratulated upon this selection. For vice-president, Dr. J. W. Keefe was elected. Dr. Keefe has occupied an eminent position for some years among the younger surgeons of our city, and we have listened to many able papers from his pen. He will surely add dignity and lustre to the vice-president's office.

The outgoing secretary, Dr. J. H. Kingman, has been one of the best secretaries the Society ever had, and we are sorry he decided to relinquish the burdens of the office, which he has filled so well and satisfactorily to all. We are particularly indebted to Dr. Kingman for many kindnesses respecting minutes of the meetings, etc., and extend to him our sincere gratitude for this, and assure the Doctor that we have heard others say as many good things as we have said about him, and more too. Whenever we wished to know anything about the affairs of the Association the Doctor was always accommodating and polite about it, and as I said before, his chair will be hard to fill.

Dr. Day of Providence was elected secretary of the Association for the ensuing year.

Dr. Davenport seemed to think that two years was enough for anyone to fill the treasurer's office and being allowed to let his mantle fall on whomsoever he wished, he nominated Dr. Sprague his successor, and he was so elected. Few, among the younger members of the profession here, are as popular as Dr. Davenport is, and the best of it is that he merits it, in a very high degree, by his courtesy, ability and learning. Dr. Sprague, his successor, is one of our rising specialists and what can be said of Dr. Davenport, can be said equally well about Dr. Sprague.

Dr. Putnam was added to the reading room committee. Dr. Putnam's scholarly attainments and charming personality will add much to that committee, where we already have such Nestors in surgery and medicine as Drs. Hersey and Porter.

That all, who attend the Association, will be well provided for during the coming year in the collation line is certain, when we know that Drs. Sprague, Rogers and Wilson will have charge of it. The outgoing members of the collation committee deserve all praise for their work, which we have often had a taste of, and the Society did the right thing in giving them a vote of thanks.

By the way, a number of bills are before the State Legislature which interest us. A lot of erring reformers are trying to have Chapter 61, Sec. 14 of the Public Statutes repealed.

This section makes vaccination compulsory throughout the state with all school children.

The bill was introduced by Senator Comstock, of Providence, "by request," as we understand it, and the Committee on Judiciary has given a number of hearings, at which the old-fashioned, long-haired, snake-charming, cancer-curing, elderberry-tea-drinking, faith-curing, bone-setting crowd appeared, and asked that the Section be repealed. The profession was ably represented by Dr. Swarts and others. The best argument against such a silly bill as the one introduced to repeal said section, is the recent outbreak of small pox at River Point, Warwick. We cannot believe that the State Senate will pass this bill, in face of such a danger.

Why did not some of these people who do not believe in vaccination, offer their services to Dr. Chapin a couple of years ago to take care of that small pox patient the city of Providence had then, just for a test you know! We think these anti-vaccination chaps will keep away from the quarantined small pox houses at River Point, for it is so much easier to come up, blustering and talking nonsense before a too lenient Senate Committee, than go near a case of small pox.

Elsewhere in this number is a copy of the Medical Bill, as introduced in the State Senate by Senator Comstock of Providence. The bill is, as will be seen, a simple registration act, and anyone that can find fault with it, must be afraid of his own shadow. For fifteen years almost, we have tried to get some legislation of this kind, and every time complaints have been made to the representatives, whose votes decide, that the bills were too strict.

Here is a bill which only provides that all who wish to practice the healing art, should register themselves as such; that is all. The meanest simpleton could never object to such a measure, for there is nothing to it, and yet it is something; it is medical legislation any way.

TRANSACTIONS OF SOCIETIES.

RHODE ISLAND MEDICAL SOCIETY.

QUARTERLY MEETING, MARCH 2, 1893.

THE President, **Wm. H. Palmer,** being detained at his home by sickness, the second vice-president, **E. P. Clarke**, officiated as chairman, **W. R. White,** secretary.

This being the annual meeting for election of officers, the various officials made their reports. The recording secretary, **W. R. White,**

reported that the active membership of the Society was 229. Just before the last annual meeting the resignation of **Charles V. Chapin** from the Library Committee was received, but the announcement was not made at the September meeting. The president appointed **H. J. Pomroy** to fill this vacancy.

A revised edition of the constitution and by-laws of the Society was published by the special committee appointed for that purpose and a copy of the same was mailed to each Fellow just previous to the December meeting.

The treasurer, **Geo. L. Collins,** reported that the total receipts for the year past had been $3,022.16. There was a balance on hand of somewhat over one hundred dollars.

The Board of Censors—**H. G. Miller**, president, and **W. R. White**, secretary, reported that the following physicians had been found qualified to become members of the Society by the Board of Examiners:

Walter E. Coyle, Providence, R. I.
James F. Duffy, Providence, R. I.
Norman D. Harvey, Providence, R. I.
Nelson R. Hall, Warren, R. I.
George J. Howe, Central Falls, R. I.
Alexander Marshall, Ashton, R. I.
Erastus L. Wilcox, Howard, R. I.

They were therefore recommended for election to fellowship, and were unanimously elected.

The Censors re-appointed Drs. **Fifield, Godding, Swarts, Rankin,** and **Hague** a committee to co-operate with the president, in securing literary programmes for the regular meetings.

Drs. **W. W. Keen,** of Philadelphia, and **Samuel W. Abbott,** of Boston, were elected honorary Fellows of the Society.

The report of the Library Committee was presented by its president, **H. G. Miller,** as follows:

You all know this meeting is three months earlier than usual, as our business meeting has always been held in June previously. The report of the financial standing of the committee I shall beg to be allowed to pass this time, owing to the change of the year, and present it at a subsequent meeting.

During the nine months from June first to February twenty-eighth the library received 604 volumes, from the following sources: From gifts 416 volumes, from United States Government 10 volumes, from exchanges 76 volumes, by transfer of binding 102 volumes, making a total of 604 volumes. Previous number on hand as reported at the last annual meeting was 9,420, which, together with acquisitions of this year make a total of 10,024 volumes, so that we have now passed the

10,000 limit. 120 were received from the estate of Dr. Chace Wiggin. 200 volumes from the estate of Dr. G. Radeke were presented by Mrs. Radeke. Mrs. Radeke also at her own expense had bound a large number of these volumes which were in pamphlets, so that her gift was all the more valued and her kindness appreciated in that respect.

H. G. Miller made a motion that the thanks of the Society be tendered to Mrs. Radeke for presenting the library of our late esteemed Dr. Radeke to the Society.

Geo. D. Hersey, in seconding this motion, added that Mrs. Radeke had also kindly offered to have all pamphlets of the Society bound at her expense. This motion was carried unanimously.

The chairman of the Museum Committee, **A. J. McCaw**, being absent, **G. T. Swarts,** member of the committee, said that four new specimens had been added during the year, and that the committee was in debt ten dollars to the Committee on Library for rent.

The Society voted that these ten dollars be paid.

W. F. Gleason spoke as follows :

The Superintendent of the Rhode Island Hospital, an esteemed member of this Society, is to-day mourning the death of his wife, which coming as it does at this time, it seems to me proper to tender to Dr. Peters some token of sympathy in his great bereavement, and I move that the Society extend its heartfelt sympathy to Dr. Peters by a rising vote. This was unanimously and feelingly given.

G. T. Swarts made a suggestion that the Anniversary chairman, **F. M. Eaton** and the proper body, having charge of the annual meeting in June, look about for a cool, comfortable place for this meeting, as the weather is usually quite warm at that time. [Why would it not be a good idea to hold this meeting at some point on the bay, for heaven knows doctors get very little time for outings and this meeting which is always particularly enjoyable would be doubly so, if we were not cooped up in a hot, close room, and forced to breathe each other's air and smoke each other's cigars.—*Editor's suggestion.*]

The officers for the ensuing year were then elected as follows:

Robert F. Noyes, President.
Elisha P. Clark, First Vice-President.
Wm. R. Gorton, Second Vice-President.
William R. White, Recording Secretary.
George D. Hersey, Cor. Secretary.
George L. Collins, Treasurer.

CENSORS.

J. W. C. Ely,
Benjamin Greene,
Eugene Kingman,
J. H. Morgan,
G. W. Jenckes,
H. G. Miller,
W. R. White,
F. H. Rankin.

BOARD OF EXAMINERS.

Charles H. Leonard, Walter L. Munro,
Franklin M. Eaton, Stephen A. Welch,
Frederick T. Rogers.

STANDING COMMITTEES.

OF ARRANGEMENTS.

C. M. Godding, E. F. Walker, J. W. Keefe.

ON PUBLICATIONS.

G. D. Hersey, C. M. Godding, G. T. Swarts.

ON THE LIBRARY.

H. G. Miller, G. D. Hersey, G. W. Porter,
G. L. Collins, C. V. Chapin.

ON THE MUSEUM.

W. J. McCaw, G. T. Swarts, F. B. Fuller,
C. M. Godding, S. A. Welch.

ON NECROLOGY.

E. Kingman, A. F. Blaisdell, C. H. Leonard.

LEGISLATION.

G. T. Swarts, A. B. Briggs,
F. H. Peckham, Jr., J. Frederick Haller,
Henry Ecroyd.

AUDITOR.

F. A. Peckham, Jr.

The presiding officer, **E. P. Clarke,** thereupon spoke some very kind and warm-hearted words for the R. I. Medical Science Monthly, saying that its publication marked an era of progress and advance in this State and cautiously hinted to the Fellows present that the treasurer of the Monthly could be found at the lower end of the room, ready and willing to receive subscriptions. The Doctor thereupon turned his beaming, smiling face, particularly adorned by the nobby rose-bud in the button hole of the Doctor's elegantly fitting Prince Albert coat, to the two young lady stenographers who were busy at the table to the left of the presiding officer, taking down notes in full of the meeting, and although the Doctor did not say anything more, we could see that he fully appreciated the earnest efforts of the publishers of the Monthly to give the profession of Rhode Island what it never before had—a home journal. These good and encouraging words and approving smiles, were fully appreciated by us all, and you do not know how much good they did us, but pardon this little transgression into a subject which naturally interests us greatly.

J. Frederick Haller reported a case of successful *Hypodermoclysis, saline infusion*, which is published elsewhere in the Monthly.

Charles O'Leary read a highly instructive and interesting paper upon the subject of *Colle's fractures* and demonstrated upon the skeleton this and other fractures of the fore-arm. This paper will be pub-

lished later in the Monthly, together with the very able and learned discussion by **J. W. Mitchell**.

Frank L. Day read a paper on *A Case of Acromegalia*, and presented the patient, inmate at the R. I. Hospital under the service of **W. R. White**.

Through the courtesy of Dr. White who serves the woman who sits here, I am able to show her to you to-day from the Rhode Island Hospital, illustrating a case of an unusual disease. She came to me the middle of last month and I saw it was an uncommon case and sent her to the hospital for observation and to see if we could do anything for her relief.

She is twenty-four years of age, was born in Ireland, and was a domestic in this country about seven years. She says she has been previously well. There is no cause for the disease in the history of her family. Two died of heart disease, no other disease is recognized as hereditary. She states that the first thing out of the way with her has been amenorrhea. She began to menstruate at 18, altogether regular for two years, when it stopped short and she has had no menstruation since that time. About a year ago she began to have pains in her hands, especially in the back of the hand, running up the outer aspect of the fore arm and up the muscle to the shoulder. At the same time she noticed that she had to increase the size of her glove. She formerly wore six and one-half and her hands grew so large and assumed such shape that she had to wear mittens. About the same time she noticed she had to increase the size of her shoes. She formerly used a number twenty-two corset and now wears twenty-four. Other changes came on later. The uniform increase in the size of the hand, which is not found to enter the bony tissue, is very marked and it continues in the feet and gives rise to the name of the disease.

There is no disability or pain in motion. The nails, as you see, seem to be very small for the fingers. The most marked thing at present in this early stage of the disease, is the enlargement of the end of the nose. There is a great development of the ribs. There is a fullness in the neck and the larynx is quite a little enlarged. There is fullness in the back of the neck and the breasts are the same. Her eyes were examined very kindly by Dr. Miller. and there is no change as yet, although she is complaining of pain. Her eyes get tired easily. Dr. Sprague obligingly examined her throat, but was unable to find anything wrong. I will very briefly speak of the growth of the symptoms of the disease in this woman, which, although scarce, have not been represented as showing a distinct disease.

A few cases have been reported, perhaps fifty, differing each from the other in all ways.

The joints of the hand and feet are apt to be increased, the nails are thick. Early in the disease the head is enlarged, the face especially. The nose and lips are enormously enlarged, the face is oval.

As time goes on there is generally a marked enlargement of the ribs. The vulvæ are sometimes enlarged while in others diminished. The nipples are large and surrounded by long hairs. The skin is apt to be coarse and flabby, sometimes rough and dry. The eyes are often affected. The appetite is rarely lost and is generally large, as in this case; her appetite is very large. The large joints of the leg are bent and deformed. Pulse is weak and represented by 90 to 94.

I remember one case which I shall never forget,— a boy in Dr. Chapin's service who had such a deformity of the facial bones, sticking out and turning the mouth out of place, so that he had to be shut up, he was so frightful. It very seldom attacks the upper extremities.

DISCUSSION BY J. FREDERICK HALLER.

This disease was first described by *Marie*, in 1886, and was termed Acromegalia,—from ἄκρον, enlarged bodily extremities,—an hypertrophy of hands, feet and head. *Fritsche* and *Klebs* have spoken of the fact that ears, nose, lips and tongue are enlarged and muscles weak, the skin yellowish; patients are emaciated and weak and the sexual functions almost absent.

Freund thinks it begins when the second teeth arrive; increases enormously at puberty and continually after this.

Marie and *Fräntzel* claim it is due to disturbances of the aortic system and atrophy of the right ventricle and report two cases. The next case is reported by *Broca* and afterwards one by *Saundby*. *Prof. Ludwig Hirt*, of Breslau, in his work on nervous diseases, published in 1890, says that: *Von der Ursache, der Krankheit wissen wir ebensovenig wie von irgend einer Behandlung; noch den Mittheilungen Goldscheider's, ist sogar der ursächliche Einfluss tropischer Nerven überhaupt noch zweifelhaft.*

Among Americans, *Adler* in the Boston M. & S. Journal, Nov. 21, '88, has described the disease, and among the English, *Saundby* spoke of the disease in the British Med. Journal, Jan. 5, 1889.

Pell, of Amsterdam, described one case in 1890, where the disease was caused by fear, in an unmarried woman of twenty-five.

Ruttle in the British Med. Journal, March 28, 1891, describes a case where there was:

1, stoppage of catamenia; 2, enlarged extremities without pain; 3, pain in head (vertex) without enlargement; 4, eye symptoms; R., atrophy; L., temporal hemianopsia; 5, abnormal sensitiveness to sound; 6, much tenderness and sensitiveness over cervical and upper dorsal regions.

Bignami observed atrophy of the optic papillæ, exopthalmus, and lost contractile power in some of the muscles of the eyeball; he referred it to osseous hyperthrophy of the base of the skull. The sense of localization in the extremities was partly lost. Tactile sensibility was decreased transversely, which is the reverse to the normal, which he explained by the law of *Vierordt*.

Marie and *Marinesco* of Paris, in a paper read before the International Medical Congress at Berlin, in 1890, speak of it as a *maladie spéciale* and an *ostéoarthropathie hypertrophiante pneumique* and apply to it the name l'acromégalie.

In summing up the disease, they consider it to be a chronic hyperplasia without inflammatory reaction; an hypertrophy of the phalanx and cartilages; an enlargment of the laryngeal cartilages, particularly the arytenoidean and the epiglottis in particular. The enlargment of the arytenoidean cartilages reached 22 mm in one case, instead of 16 mm, being about the normal in females. *Klebs* has confirmed the views of the observers.

M. Lion and *Prof. Hayem* have observed an atrophy of the thyroid gland and that the quantity of hœmoglobin present was considerably diminished.

Marie and *Marinesco* further state that the brain weighed about 1220 grams (about 40⅔ ounces).

The mammary glands were atrophied; the pituitary body tumified and schlerosed. They consider it an hypertrophy of the dermal and sub-dermal tissues, the periosteum and bones as well; a remarkable process of osteogenesis, a schlerosis of the great sympathetic nervous system, showing itself in morbid changes in the peripheral nerves.

They think it due to an embryonic predisposition favored by special conditions affecting the circulation of the regions involved in these morbid changes.

The Germans have, as usual, given it a very striking name though long it be. An "*einfache hyperplastische Vergrösserung.*"

The Society adjourned and partook of a delicious collation served in splendid style, as usual, by caterer Tillinghast.

PROVIDENCE MEDICAL ASSOCIATION.

REGULAR MONTHLY MEETING, MARCH 6, 1893.

The president, **Robert F. Noyes** in the chair. The secretary, **J. H. Kingman**, being absent, **S. A. Welch** was elected secretary pro tem. This being the annual meeting for election of officers and reports of the work of the past year, the President presented a summary of the transactions of the Association, which is printed in full elsewhere.

The reports of the secretary and treasurer were also received and accepted. The officers elected for the ensuing year are.

F. B. FULLR, President;
JOHN W. KEEFE, Vice-President;
F. L. DAY, Secretary;
F. B. SPRAGUE, Treasurer.

STANDING COMMITTEE.

R. H. CARVER, Chairman, W. R. WHITE,
JOHN W. KEEFE, G. T. SWARTS,
F. L. DAY.

READING ROOM COMMITTEE.

GEO. D. HERSEY, Chairman, GEO. W. PORTER, HELENE C. PUTNAM.

COLLATION COMMITTEE.

F. T. ROGERS, W. E. WILSON, F. B. SPRAGUE.

A vote of thanks was given the retiring president **Robert F. Noyes.** The tax for the year was fixed as before, four dollars. Quite an interesting discussion took place over the annual tax, which was participated in by Drs. **Porter, Ely, Eaton, Davenport, Swarts,** and **Noyes.**

The President said he would appoint those, who are to present reviews of different subjects at each meeting, at the next meeting of the Association.

W. J. McCaw was to have read a paper but wished to be excused.

F. H. Peckham, E. B. Harvey and **N. D. Harvey,** applied for membership and were referred to the Standing Committee.

W. E. Wilson read an interesting paper on *Super-Orbital Neuralgia and Neurectomy* which is published elsewhere in the MONTHLY.

A short discussion of this paper followed by **Robert F. Noyes.**

Geo. W. Porter reported two interesting cases and showed specimens of: *1st, Fibroma of the Uterus; 2d, Dermoid Cyst of Ovary,* which are published in full, elsewhere in the MONTHLY. Discussions followed by Drs. **Ely, Fuller** and **Noyes.**

Drs. **Miller** and **Ely** moved that a committee of three be appointed to revise the by-laws. Drs. **Noyes, Kingman** and **Day** were so appointed.

In discussing the extent of revision of existing by-laws Dr. **Forsyth** remarked, that such revision ought not to include fee-table. After this the Association adjourned to partake of an elaborate collation, tendered the Association by the retiring president **Robert F. Noyes.**

STATE MEDICAL SOCIETIES.

BELOW we give the place and time of meeting of the various State Medical Societies for 1893, with their secretaries names:

Alabama — T. A. Means, Montgomery; Selma, April 11.
Arkansas — L. P. Gibson, Little Rock; Batesville, May 31.
California — N. W. Kerr, San Francisco; San Francisco, April 18.
Colorado — A. S. Lobingier, Denver; Denver, June 20.
Connecticut — N. E. Nordine, Bridgeport; Hartford, May 24.
Delaware — N. C. Pierce, Wilmington; Cape Henlopen City, June 13.
Florida — J. D. Fernandez, Jacksonville; Jacksonville, April 4.
Georgia — D. H. Howell, Atlanta; Americus, April 19.

Illinois — D. W. Graham, Chicago; Chicago, May 16.
Indiana — E. S. Elder, Indianapolis; Indianapolis, May 10.
Iowa — C. S. Chase, Waterloo; Burlington, May 17.
Kansas — W. S. Lindsay, Topeka; Topeka, May.
Kentucky — Steele Bailey, Stanford; Frankford, May.
Louisiana — P. B. McCutchon, New Orleans; New Orleans, May 9.
Maine — C. D. Smith, Portland; Portland, June 14.
Maryland — G. L. Taneyhill, Baltimore; Baltimore, April 25.
Massachusetts — F. N. Gop, Boston; Boston, June 13.
Michigan — C. W. Hitchcock, Detroit; Muskegon, May.
Minnesota — C. B. Witherle, St. Paul; Minneapolis, June 21.
Mississippi — H. H. Haralson, Forest; Jackson, April 19.
Missouri — L. A. Berger, Kansas City; Sedalia, May 16.
Montana — T. H. Ellis, Butte; Great Falls, April 19.
Nebraska — George Wilkinson, Omaha; Nebraska City.
New Hampshire — G. P. Conn, Concord; Concord, June 20.
New Jersey — Wm. Pierson, Orange; Spring Lake, June 27.
New York — E. D. Ferguson, Troy; New York, Oct. 10.
North Carolina — R. D. Jewett, Wilmington; Rawleigh, May 9.
North Dakota — D. S. Moore, Jamestown; Jamestown, May 25.
Ohio — T. O. Fitzpatrick, Cincinnati; Put-in-Bay, June.
Oregon — C. H. Wheeler, Portland; The Dalles, June 13.
Pennsylvania — Wm. B. Atkinson, Philadelphia; Williamsport, May 16.
Rhode Island — W. R. White, Providence; Providence, June 1.
South Carolina — W. Peyre Porcher, Charlestown; Sumpter, April 19.
South Dakota — R. C. Warne, Mitchell; Huron, May or June.
Tennesee — D. E. Nelson, Chattanoga; Nashville, April 11.
Texas — H. A. West, Galveston; Galveston, May 2.
Vermont — D. C. Hawley, Burlington; Rutland, Oct. 12.
Virginia — L. B. Edwards, Richmond; Charlottesville, October.
Washington — G. D. Shaver, Taconia; Taconia, May 10.
West Virginia — D. Mayer, Charlestown; Parkersbury.
Wisconsin — C. S. Sheldon, Madison; Milwaukee, May 3.

LITERARY REVIEW—BOOKS RECENTLY PUBLISHED.

A Manual of Medical Jurisprudence And Toxicology. By Henry C. Chapman, M. D. Professor of Institutes of Medical Jurisprudence in the Jefferson Medical College of Philadelphia, etc., etc., Philadelphia, Pa. *W. B. Saunders*, 1892, pp. 237, with 36 illustrations, some of which are in colors. *Price $1.25 net.*

Chapter I treats of the importance of the subject of Medical Jurisprudence, oridinary and expert Witnesses, and their fees, of the laws governing the Coroner's Physician in Pennsylvania, valuable hints in making Post-Mortem examinations in Medico-Legal cases, and the conduct of the Medical Witness in court. Under the signs of death, in Chapter II, the description given of the process of putrefaction, although a loathing subject, is clothed in such language as to be interesting reading. The definition and description of Medico- Legal Wounds is very full and comprehensive, under this head on page 57, the twelveth line, from bottom the word "disturbed" is used in the text, when we think the Author would use *distended.* The methods given for the

Chemical, Microscopical and Spectroscopical examination of Blood-Stains are, although brief, exceptionally good.

The distinction of suffocation by strangulation and suffocation by hanging, is dwelt upon and from a Medico-Legal point of view this is important; since death from strangulation would be usually regarded as homicidal, that from hanging suicidal. One might get the wrong idea from the text as to the age of consent; the Author evidently follows the old English law, and gives the age of consent at ten years, while in fact different states place it from ten to fifteen years. The uncertain and certain signs of pregnancy are given with great clearness, and if the medical examiner is guided by the advice given in chapter VIII, no innocent woman will be injured by his testimony in court. In chapter X, the signs given of a child born alive or dead are very explanatory, so that a diagnosis of infanticide or fœticide can with a certainty be made. The Medico-Legal aspect of insanity is very ably treated, the different forms of insanity are briefly described, and some very sound advice is given in regard to the Home and Hospital treatment of the insane. In the chapter on Toxicology, as the scope of the work limits the Author, all he strives to accomplish is to point out the kind of toxicological knowledge the medical expert should possess; still there are quite full and explicit directions given for making autopsies and examinations of the body in cases of suspected deaths from poisons.

The book is essentially the course of lectures on Medical Jurisprudence delivered by the Author to the students of the Jefferson Medical College during the session of 1891 and 1892, and while it is not intended to take the place of the standard works on the above subject by such authors as Casper, Mascha, Tardieu, Taylor, Beck, etc., still it will be of much value to students, general practitioners, and especially do we commend it to our Medico-Legal brethern.

A. B. B.

Notes On The Newer Remedies. By David Cerna, M. D., Ph. D. Demonstrator of Physiology in the Medical Department of the University of Texas; formerly Assistant in Physiology, in the University of Pennsylvania, etc., etc. *Philadelphia, W. B. Saunders, 1893. Price $1.25.*

This is a brochure of 177 pages and contains a brief description of more than six hundred new remedies. The Physical Properties, Solubility, Therapeutic Applications and mode of Administration are given of each remedy, and they are arranged in alphabetical order. Included in the list are all the coal-tar derivatives and their names are legion. A short description is given of Tuberculin, or "Koch's lymph," also Tuberculocedin, an albumose isolated from crude tuberculin, which is said to act specifically upon tubercle bacillus without producing febrile symptoms; so far, it has been found superior to the original lymph.

The "Notes" are not intended or claimed to be a work on Therapeutics, but more of a brief record of the Therapeutics application of the newer remedies and as such will be of great value to the physicians as a ready reference vade-mecum.

A. B. B.

The enterprising house of W. B. Saunders, *Philadelphia*, has recently published An American Text Book of Surgery for practitioners and students. By Charles H. Burnett, M. D., Phineas S. Conner, M. D., Frederic S. Dennis, M. D., William W. Keen, M. D., Charles B. Nancrede, M. D., Roswell Park, M. D., Lewis S. Pilcher, M. D., Nicholas Senn, M. D., Francis J. Shepherd, M. D., Lewis A. Stimson, M. D., William Thomson, M. D., J. Collins Warren, M. D., and J. William White, M. D. Edited by William W. Keen, M. D., LL. D. and J. William White, M. D., Ph. D.

Extract from the London *Lancet*, December 10, 1892. "If this text book is a fair

reflex of the present position of American Surgery, we must admit it is of a very high order of merit, and that English surgeons will have to look very carefully to their laurels if they are to preserve a position in the van of surgical practice." Profusely illustrated. *Price, Cloth, $7 net; Sheep, $8 net; Half Russia, $9 net. Philadelphia, W. B. Saunders, 913 Walnut street, 1893.*

The same firm has also an excellent work in preparation: An American Text Book of the Medical and Surgigal Diseases of Children, by the most eminent specialists in this field. We will say more about this later.

History of the Life of D. Hayes Agnew, M. D., LL. D. By J. Howe Adams, M. D. With fourteen full-page portraits and other illustrations. In one large Royal Octavo volume, 376 pages, extra cloth, beveled edges, $2.50 net; Half-Morocco, gilt top, $3.50 net. *Sold only by Subscription. Philadelphia, The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street.*

Foremost among American surgeons stands the name of *Dr. Agnew*, and his life, labors, and illustrious achievements should be known to all progressive members of the medical profession. *Dr. Adams* is to be complimented on his very complete and meritorious description of this great surgeon, and Messrs. F. A. Davis & Co., deserve much praise for this excellently printed and profusely illustrated volume. Where can we learn better lessons than from the lives of those who have reached the Parnassus in the art of healing?

Over 1,000 Prescriptions and Favorite Formulæ from Authors, Professors and Practicing Physicians. Cloth, 12mo., postpaid, $1.00. The Illustrated Medical Journal Co., Detroit, Mich.

The various Formulæ contained in this volume are *practical prescriptions* of new and old remedies for the various types of diseases that affect mankind. *They are the favorite ones* of the various authorities, for the diseases indicated. The *index* is full and complete, thus rendering the whole book easy of access. The volume is copiously interleaved, so that on the blank pages can be recorded, by pasting or copying with pen or pencil, any other prescription suitable for any disease that is on the opposite page of the book; the complete index thus indexes each new formulæ you may see fit to copy into the pages of the volume. The whole is comprised in a handy cloth-bouud volume of nearly 300 pages, and will be mailed to any address upon receipt of its price by the above publishers. Every physician ought to have it.

Thirty-Ninth Registration Report of Rhode Island, 1891. *By the State Board of Health, Charles H. Fisher, M. D., Secretary.*

Of all the volumes prepared, this one is the most stupendous and complete collection of statistics and facts about our state, and reflects much credit upon *Dr. Fisher.*

The Chronic Disorders of the Digestive Tubes. by W. W. Van Valzah, A. M, M. D. *J. H. Vail, of New York, 1893. Price, $1.50.*

An excellent little work on these classes of disorders, and ranks very high among recent publications of this kind. Much new and original material will be found in it, and the author and publishers are to be congratulated on its merits and neat appearance.

We have received many publications from the great house of D. Appleton & Co., of New York City, which will be mentioned in future issues.

George S. Davis, the progressive publisher, of Detroit, Michigan, has some good things in preparation, which we shall mention further on.

Medical Numismatics.—Dr. Horatio R. Storer, of *Newport, R. I.*, who has for several years been making researches in medical numismatics, will be glad for aid in this direction, and will give due credit for all information of the kind. Dr. S. has thus far published the following papers upon the subject: "The Medals, Jetons and Tokens Illustrative of Midwifery and the Diseases of Women."—*New England Medical Monthly*, November, December, 1886; "The Medals, Jetons and Tokens Illustrative of Sanitation."—[Water Supply, Bathing, Mineral Springs, Drainage, Sewerage, Ventilation, Diet, Famine, Epidemics, Mil. and Naval Hygiene, Climate, Registration, Life Insurance, Hospitals, etc.]—*The Sanitarian*, May, July, August, October, 1887, February, April, July, August, November, 1888, February, March, April, June, September, November, 1889; January, 1890, February, May, July, August, September, October, July, 1891, August, September, (not yet completed); "The Goethe Medals"—(the poet was educated as a physician)—*American Journal of Numismatics*, October, 1887, January, 1888; "The Medals of Guislain"—(the Belgian alienist) *Medico-Legal Journal*, December, 1887; "Les Medailles de la Princesse Charlotte d'-Angleterre. Premiere Femme du Roi Leopold ier de Belgique"—(dead in childbirth) —*Revue Belge de numismatique*, January, 1888, October, 1891; "The Medals of St. Charles Borromeo, Cardinal, Archbishop of Milan,"—(identified with the Plague of 1576)—*Amer. Journal of Numismatics*, July, October, 1888; "The Medals, Jetons and Tokens Illustrative of the Science of Medicine"—*Ibid.*, January, April, July, October, 1889, January, 1890, April, July, October, January, 1891, April, July, October, January, 1892, April, July, October, (to be continued); "The Medals of Benjamin Rush, Obstetrician,"—*Journal of the American Medical Association*, September 7, 1889." "The Medallic Medical History of the U. S." Trans. R. I, Med. Soc., 1891. "Medals of Natural Scientists," Part I., Proc., Newport, Nat. Hist. Soc., 1892.

J. F. H.

FUN, FORTUNE AND FORMULÆ.

He Hadn't Taken Anything.—"Have you taken anything for your influenza?" asked the doctor of a long, lank, hungry-looking man who came to him complaining of being "all run down," his appearance verifying his words.

"Well I ain't been takin' much of anything, doctor—that is nothing to speak of. I tuk a couple o' bottles Pinkham's bitters awhile back, an' a bottle o' Quackham's Invigorator, with a couple o' boxes o' Curem's pills, and a lot o' quinine and root bitters my old woman made up. I've got a porous plaster on my back an' a liver pad on, and I'm wearing an electric belt an' takin' quinine and iron four times a day, with a dose or two of salts ev'ry other day. 'Ceptin' for that I ain't takin' nothin'."—*Med. Review.*

INFLUENZA.

POWDERS.

℞ Quinine hydrochlorate. . . grs. xv
Antipyrine. . . . . grs. xxiij
M.

Ft. chart. No. iij, Sig. 2 at intervals of half an hour; the third, two hours later.

MIXTURE.

℞ Sodium benzoate, ... ℥j ℈j
Cherry-laurel water, . . . Fl. ℥ijss.
Codeine syrup, ... Fl ℥ss.
Salep mucilage, ... Fl. ℥iij
M.

Sig. Tablespoonful several times daily.—*Gendre.*

Wetmore—"Did Old Soak leave any last word?"
Dryden—"Yes, he said it was tough to be laid out on only one bier."

We very seldom have a case of gout to treat; oh, no, our patients are not that kind, but we have had some bad cases of chronic rheumatism improve wonderfully when treated with *Henry's Tri-Iodides.* Doctor, try them.

A well-known California physician once said, "A physician's appearance goes a long way in his bills, as well as in other ways. I once practiced against a man who dressed with the greatest care, and although he was an awful ignoramus, he got away with me; but it was a lesson I learned well, and I say, dress well; not like a dude, but in good, well-fitting clothes." Doctor, *Macullar, Parker & Co.* deal in just this class of clothing; when you are in Boston or Providence again call on them, tell them you got the *tip* from the Monthly, and see how glad they will be to see you.

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DIPHTHERIA.

℞ Lig. hydrarg. perchlor., . F. ℥iij;
Potass. iodid., ... grs. x;
Ferri et ammon. citrat., . . grs. xx;
Syrapi, ... F. ℥iv;
Aquæ, ... F. ℥ij—M.

Sig. One teaspoonful every two hours (for a child of two to four years). Dr. Illingworth.

Mary: "F-e-r-m-e-n-t, ferment—to work." Mamma: "Now, place it in a sentence to show me you really understand it." Mary: "In summer I love to ferment in the garden.—*The Waterbury.*

Send to L. B. Wheeler, M. D., Montreal, P. Q., for a pamphlet on the "Phosphates," and mention the Monthly.

INTERLOBAR PLEURISY.

℞ Creosoti, ... ℥ij;
Menthol, ... ℥j;
Encalyptol, ... ℥j;
Chloroformi, ... ℥ij;
Aquœ cologniensis, ... ℥ij—M.

Sig. Thirty drops to be inhaled from a Welch or Yeo respirator every two or three hours.

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ECZEMA VAGINÆ.

℞ Ext. Belladonna, ... grs. v;
Arsenious acid, ... grs. v;
Ext. Opii, ... grs. ij;
Sulphate quinine, ... ℈i;
Oil theobroma . . . . . q. s.

Mix and divide into twenty suppositories.
Sig. Insert one in the vagina four times a day.

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PAN-AMERICAN MEDICAL CONGRESS.

SECTION OF MILITARY MEDICINE AND SURGERY.

THE following gentlemen have been duly appointed members of the Advisory Council of this Section: Col. Lewis Read, M. D., Surgeon-General N. G., Pa.; Newton L. Bates, M. D., Medical Director U. S. N.; J. H. Tryon, M. D., Medical Inspector U. S. N.; Lieut.-Col. Eustathius Chancellor, M. D., Medical Director N. G., Mo.; Bre't. Lieut.-Col. A. A. Woodhull, M. D, Surgeon U. S. A.; Major Jos. H. Corson, M. D., Surgeon U. S. A.; Major Geo. Henderson, M. D., Medical Director N. G., D. C.; C. N. Hoagland, M. D., Ex-Surgeon Ohio Vols.; Bedford Brown, M. D., Ex-Surgeon C. S. A.; H. C. Goodman, M. D., Ex-Surgeon U. S. Vols.; Mel-

ancthon Storrs, M. D., Ex-Surgeon Conn. Vols.; O. D. Ball, M. D., Pension Ex-Surgeon, Albany, N. Y.; Capt. H. O. Perley, M. D., Asst. Surgeon U. S. A.

Geo. M. Sternberg,
Deputy Surgeon-General U. S. A., Pres. of Section.

THE SECTION ON THERAPEUTICS OF THE PAN-AMERICAN MEDICAL CONGRESS.

To the Editor;

Will you kindly state in the columns of your esteemed journal that it is the earnest desire of the officers of the section on Therapeutics of the Pan-American Medical Congress, that both specialists and general practitioners should contribute articles to its proceedings.

Gentlemen who desire to read papers at this meeting should notify the undersigned at once of their intention, and should send him by July 10th at the latest, an abstract of their papers in order that it may be translated into the three official languages of the Congress and published in the program. The importance of this section and the interesting papers, which have already been promised, give assurance of a very successful meeting.

H. A. Hare,
President of Section.

AMONG OUR EXCHANGES.

American Analyst. Published 1st and 15th of each month., by The Analyst Publishing Co., No. 19 Park Place, New York, at $.100 per year.

It is a magazine advocating pure food, and could be read to advantage by every housekeeper in the land; it has departments devoted to the Household, Medicine and Hygiene.

Cleveland Medical Gazette. A monthly journal of Medicine and Surgery, at $2.00 per year, published at 122 Euclid Avenue, Cleveland, O. It contains some very interesting and instructive reading. Its editorial in the January number on Advertising Circulars is terse and to the point.

The Texas Health Journal. A monthly published by The Health Journal Publishing Co., Dallas, Texas, at $2.00 per year. The Journal is the official organ of the Texas State Sanitary Association, and is devoted to preventive and State medicine. The January number has an article on Dental Hygiene, by John C. Story, M. D., D. D. S., that could be read to advantage by every physician. Its pages are full of instructive reading, its typography is excellent and the general make up of the Journal is fine, but it has the bad form of inserting advertising pages among the reading matter.

The Southern Practitioner. An independent monthly, published at Nashville, Tenn., by Deering J. Roberts, M. D., at $1.00 per year. The Practitioner claims to be independent and one has but to read its pages to verify its claims; however much one may differ from the views expressed by it, editorially and otherwise, we cannot but admire its frankness.

The Medical Herald. Published by The Medical Herald Co., 6th and Charles Streets, St. Joseph, Mo., at $2.00 per year. This is the representative medical journal and one of the leading monthly journals of the west.

Medical Standard. The Medical Standard is issued the first of every month by

G. P. Engelhard & Co., Dearborn and Harrison Streets, Chicago, Ill., at $1.00 per year. The Standard is an excellent monthly and merits, as it no doubt has, a large circulation.

The Brooklyn Medical Journal. Published at 333 Hancock Street, Brooklyn, N. Y., at $2.00 per annum. The Journal is a monthly published under the supervision of the Medical Society of the County of Kings. It is excellently edited, well printed and is an ideal medical journal.

The Cincinnati Lancet Clinic. Published weekly at 199 West 7th Street, Cincinnati, Ohio. Terms, $3.00 per annum.

Northwestern Lancet. A semi-monthly medical journal, published at 30 East Fourth street, St. Paul, Minn.

Atlanta Medical and Surgical Journal. A monthly published at Atlanta, Ga., at $2.00 per year. Among the contributors to the above journal, we notice *Virgil O. Hardon, M. D.*, formerly of Providence, R. I., and a member of the Rhode Island Medical Society.

The Times and Register. A weekly Journal for Medicine and Surgery, published by the Medical Press Co., 1725 Arch Street, Philadelphia, Pa., at $3.00 per year.

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A MONTHLY REVIEW OF REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

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VOL. I. APRIL, 1893. NO. 4.

OBSTETRICS.

MANAGEMENT OF THE THIRD STAGE OF LABOR.

A PAPER READ BEFORE THE MARION COUNTY MEDICAL SOCIETY.

By D. S. MADDOX, M. D., Marion, O.

BY the third stage of labor we mean the expulsion of the placenta. Uterine retraction detaches the placenta by lessening the area of its attachment, and this usually takes place in from five to twenty minutes after the completion of the second stage. In ancient times it was customary to leave the delivery of the placenta to the unaided powers of nature, but at the present day no accoucheur would think of leaving his patient until the placenta had been delivered. It is true that the placenta will almost always come away without the intervention of the obstetrician's art, but in some cases many weary hours will elapse before nature completes the last act of the drama.

Parvin, in his classical work, "The Science and Art of Obstetrics," quotes the statistics of Kabierske showing the duration of the last stage of labor in one hundred cases which were left to nature. In these cases the time required varied from thirty minutes to twelve hours. These figures are an argument in favor of intelligent interference, but the mere saving of time is not by any means the only reason for not leaving this stage of labor to nature. To fail to assist nature in expelling the placenta (which becomes a foreign body as soon as it is detached from the uterine wall) is in many cases to expose the parturient woman to the risk of hemorrhages and of septic infection.

How soon after the birth of the child should we proceed to extract the placenta? At one time it was the universal practice to deliver immediately, but nowadays, I believe, it is the concensus of opinion among obstetricians that a short delay (from ten to twenty minutes) is advantageous. This delay affords nature an opportunity to detach the

after-birth and expel it from the uterus; it favors the formation of coagula in the uterine sinuses; and, lastly, the patient is fairly entitled to the brief respite after her trying ordeal.

When we come to extract the placenta, we are warned by all of the modern obstetric authorities that we must not rely on traction of the cord. Cogent reasons are advanced for condemning the delivery of the after-birth by a *vis-a-fronte*. We are told that forcible traction is liable to invert the uterus; that dangerous hemorrhage may follow; and that portions of the placenta are apt to be detached from the mass, which, remaining *in utero* and decomposing, may act as foci for septic infection. The modern method of delivering the placenta, and the one now universally adopted, is that of *expression*.

The text-books recommend Crede's method of expression, but when we seek to ascertain just what Crede's method is, we are somewhat surprised to find that the authorities differ in their descriptions of it. I have recently consulted three standard obstetric text-books, and have found therein as many descriptions of Crede's method. Playfair says: "The fundus should be grasped in the hollow of the left hand, the ulnar edge of the hand being well pressed down behind the fundus, and *when the uterus is felt to harden* strong and firm pressure should be made downwards and backwards in the axis of the pelvic brim." Lusk says: "Crede's method consists essentially in applying at first light and then stronger friction to the fundus of the uterus until an energetic contraction is obtained. When the contraction is at its height the uterus is grasped so that the fundus rests in the palm of the hand with the fingers to the front." Parvin says: "Frictions, at first gentle and then more or less vigorous, of the fundus and of the body of the uterus are made through the abdominal wall. When a uterine contraction occurs, the obstetrician applies his hand to the organ, the palm upon the fundus, the four fingers upon the posterior and the thumb upon the anterior wall, and exerts a moderate pressure, which is soon followed by the expulsion of the placenta—it is thus expressed, squeezed out, as the seed from a ripe cherry compressed between the thumb and fingers." It will be seen that while these different maneuvers differ in their details, they all aim to exert a *vis a tergo*—which is the essential element. I think, however, that in women with very thick abdominal walls, it will be found somewhat difficult, and sometimes impossible, to exert this force by grasping the fundus in the palm of the hand, in the manner described by Playfair and Lusk.

The method which I am in the habit of employing to deliver the placenta is a modification of the so-called Crede's method. In the first place I do not resort to any preliminary frictions of the uterus. After waiting ten or fifteen minutes I press the four fingers vertically down-

ward behind the fundus, allowing the ball of the thumb to rest on the anterior surface of the uterus. I do not carry my fingers down on to the posterior wall as recommended by Parvin, but allow the ends of them to rise against the lower part of the fundus. Moreover, I do not wait for contraction to occur, for I have found that the maneuver which I employ invariably induces efficient uterine contraction. With the hand grasping the uterus in the manner above described, I exert firm, but *intermittent* pressure; at the same time I seize the cord and make it tense, and when I feel the placenta loosen its attachment, make gentle traction. Thus, by expression, aided by moderate traction, is the after-birth made to descend into the vagina. As soon as it comes within reach I seize it with my fingers, and giving it a few turns so as to twist the membranes into a rope, extract it.

In a paper recently read before the Cincinnati Obstetrical Society, Dr. W. D. Porter recommended the application of both hands to the uterus in order to exert pressure. I cannot myself see what advantage is gained by using both hands. Indeed, I should think that such a proceeding would be found somewhat awkward, for I am of the opinion that the accoucheur can have better control of the uterus with one hand than with two.

It now remains to consider the complications of the third stage. Adherent placenta is fortunately seldom encountered, and even when we do meet with it, it is rarely pathological. Placental adhesion is usually the result of uterine atony, and occurs in women that have given birth to a large number of children. But there may be adhesions due to previous disease, as placentitis, inflammation of the uterus, or there may be "fibrous degeneration of the elements which normally unite the uterus and placenta" (Parvin). When we have to deal with a case of adherent placenta we should endeavor to stimulate the uterus to active contraction by friction and pressure, and thus cause expulsion, if we can. Failing by these means to deliver the placanta, we must introduce the hand and detach it. But it must be borne in mind that the introduction of the hand into the uterine cavity is an operation fraught with some danger, hence it should not be resorted to hastily. If hemorrhage occurs, and its occurrence is inevitable if there is a partial detachment of the placenta, then we have not a moment to waste on expectant measures. The hand, thoroughly disinfected, must be carried into the uterus and the placental mass detached and withdrawn. Hour-glass contraction is a complication rarely met with nowadays. When this condition of the uterus is present, it will usually be found to be due to the injudicious use of ergot. This drug induces a general tonic contraction which separates the interior of the organ into two cavities, the dividing line being the internal os. In this

condition of affairs, if there be no hœmorrhage, we may wait until relaxation takes place, aiding it meanwhile by the rectal injection of opium or chloral.

The placenta having been delivered, it is a good routine practice to administer a full dose of ergot as a preventative of hemorrhage and as a means of lessening after-pains.—*The Cincinnati Lancet-Clinic.*

PUERPERAL ECLAMPSIA.

By W. H. BOWEN, M. D.

PUERPERAL eclampsia is the most formidable disease with which the obstetrician has to deal. It occurs only in the parturient female. Of those attacked, at least one-quarter die. One case occurs, on an average, in every 500 child-births. Various theories have been advanced to explain its etiology, symptomology and pathology. It has been called hysterical, epileptic, apoplectic, hydrœmic, anæmic or toxæmic. These conditions do, no doubt, sometimes become exciting factors in the production of this disease; but alone they never produce true puerperal eclampsia, which is a disease "sui generis." Let us consider briefly some of these theories. The gravid uterus pressing on the kidneys and blood vessels obstruct the renal circulation, thereby producing a deficient secretion of urine, and the consequent accumulation of urea in the blood, which sometimes, it is said, is rapidly changed into carbonate of ammonia, loading the system with effete and toxic materials; this, to some, has seemed sufficient cause to produce puerperal eclampsia; but if this were often the case why would not the pressure of an ovarian or an abdominal tumor produce the same effect? Post mortem examinations of women dead with this disease have sometimes revealed parenchymatous nephritis, yellow atrophy of the liver with fatty infiltration or degeneration; but such a condition is not always found to exist, and it has by no means yet been proved that women who suffer from these diseases are any more liable to have puerperal eclampsia than those not so affected. The hydræmic condition of some patients has given rise to the theory that the convulsions are due to œdema, or anæmia of the brain; but it is not in the anæmic and enfeebled that we expect to meet puerperal eclampsia, but more often in the plethoric and the robust. The uræmic or toxæmic theory seems to have the most advocates among medical men of to-day. Albumen, it is said, can be found in at least 5 per cent. of all pregnant women; the kidneys, liver, bowels and skin of such persons often perform their functions in a very sluggish and imperfect manner, and there may be, on this account, an accumulation of toxic materials in the blood, which might so irritate the sympathetic nervous system that

eclampsia would result. We do not often expect to see convulsions in the non-pregnant, if albumen does exist in the urine, or if the liver and kidneys are diseased. Uræmic convulsions occur but rarely, even in those whose kidneys are much disorganized. Something more, it seems to me, is necessary than uræmic poisoning to produce puerperal eclampsia.

This may at times be a potent factor—an exciting cause. So may mechanical pressure, or plethora, or anæmia, or hydræmia, or mental emotion even; provided, there is present to be acted upon that irritable and highly sensitive, sympathetic nervous system which is so common in the pregnant woman. I think the nervous system is more often at fault in these cases than some profess to believe, and it is as necessary to counsel the patient in regard to husbanding her nervous energy and to warn her not to fret and worry and exhaust herself by severe mental or bodily labor, as it is to give her directions concerning the functions of her organic nature.

It remains for me to mention but one other theory, the microbic, which to some is the direct cause of every disease. "The microbe of eclampsia" may exist in the fertile imagination of some bacteriologist but it has not yet, with certainty, materialized under his microscope.

The following case is reported from my practice because it seems to preclude uræmia as the cause of the eclampsia:

Mrs. C. aged 24, short, stout, well-developed, plethoric, always been healthy, primiparous. From her appearance before and during labor I saw nothing to lead me to expect puerperal eclampsia. She had no headache, no puffiness about the face, no confusion of thought, no restlessness or disordered vision. She was cheerful, and had but little edœma about the lower extremities. Her labor was normal and lasted about eight hours. Her pains came in quick succession and were very strong and forcing. The child was large and when born was cyanotic, owing, no doubt, to the pressure it had received while passing through the pelvis. After delivery, the woman was made comfortable without exertion on her part, I assisting as I am wont to do.

I had reached my carriage to depart when I was hastily recalled, and found the patient in convulsions. The fit was long and severe and was followed by deep coma and stertorous breathing. I immediately bled her from her arm, abstracting about one quart of blood. I then injected into her rectum sixty grains of chloral hydrate and thirty grains of bromide of potassium. This was repeated four hours later. She rapidly recovered, is living to-day, and is the mother of four children. Her urine was examined several times during the week following delivery, and was always found free from albumen. The eclampsia in this case cannot be attributed to uræmic poisoning. Shall we say that it was due to excessive blood pressure on the nerve centers?

MEDICINE.

NON-MEDICINAL METHOD OF TREATING CHRONIC CONSTIPATION.

BY S. G. GRANT, M. D., KANSAS CITY, MO.

Professor of Diseases of the Rectum, University Medical College, Rectal Surgeon, All Saints and Scarritt Hospitals, East Side Free Dispensary and Children's Home.

Read Before the Medical Society of the Missouri Valley, at St. Joseph, Mo., March 16, 1893.

AMONG minor ailments, probably none is more annoying to the physician, or disheartening to the patient, than chronic constipation. Ordinarily, one after another, a series of drugs will be prescribed, each affording, in a measure, a relief for a time, then becoming powerless until finally the patient becomes disgusted with doctors and resorts to the injection (Hall treatment), or still worse, the various patent nostrums which are advertised to cure this annoying condition. There is another method independent of medicine, which I believe, will render permanent benefit in nearly, if not all cases, either before or after medicine has failed to do the work. This method, while not understood by some, is too frequently overlooked by others who do understand its value in a measure, in their great hurry to obtain immediate relief. The method referred to embraces several features; some are new, while others are more or less familiar to many of you. Under the title of this paper I will endeavor to bring prominently before you the method which I use in the treatment of this annoying condition. In the beginning, however, I desire to say that I am of the opinion that through medicine we do at times get some happy results, at the same time, I must admit, according to my belief, the indiscriminate use of medicine causes more cases of constipation than it cures. As I take it, medicine should be the secondary, and not the prime factor in the treatment. The essential features in this method of treatment are as follows, in the order of their importance, viz.:

First, dilatation of the sphincter ani. Second, abdominal massage. Third, electricity. These to be applied by the physician; then the patient, too, must perform his duties under instructions, which are as follows: Go to stool daily at the same hour. Second, correct errors in diet. Third, take sufficient out-door exercise. Fourth, dress warmly in winter. Fifth, take cold bath every morning, followed by thorough rubbing. Sixth, drink a glass of cold or warm water on arising in the morning, or eat fruit at the beginning of the morning meal. Seventh, when the case demands it, make a change in climate or occupation.

Dilatation of the sphincter ani, as I take it, is the most important factor in the treatment. For several years I have preceded nearly all of my operations about the anus and rectum by divulsion of the sphincter in order to prevent after pains from its contractions. Many of these patients were afflicted with constipation previous to the operation, and they not infrequently remark afterward that I had cured them of their constipation as well. After due reasoning I came to the conclusion that this marked benefit of the constipated condition was a result of the dilatation. At this time I determined to try it on some of the old cases of chronic constipation, which I had been trying to relieve by other remedies. The result so obtained was so gratifying that two years ago I made a statement in the Kansas City Academy of Medicine, to the effect that I believed nearly all cases of habitual constipation could be benefited, if not entirely relieved, by thorough dilatation of the sphincter. One year ago, the first of last February, I read a paper before the Jackson County Medical Society, in which I advised this procedure in conjunction with abdominal massage, with the report of several cases thus treated successfully. Some time after I began these experiments I noticed an article in the *New York Medical Journal*, by Dr. Clement Cleveland, advocating dilatation as a cure for constipation, with a report of cases.

A short time after this Dr. Ferdinand Durand comes out in an article recommending it in the treatment of constipation in children. Dr. Matthews of Louisville, Ky., in a recent text-book on rectal surgery, recommends it as one of the most valuable factors in the treatment of this condition. With the exception of the articles herein named, I think little has been written on this method of treatment; hence I draw my conclusions that it is a comparatively new procedure. The more I practice this method the better I am pleased with the results obtained. Of late, however, I have been in the habit of combining with it the several other features previously named, in order to build up the general system as well.

The theory of the operation may be partially explained in the study of the action of the external sphincter. If this muscle is destroyed by any operation around the rectum, incontinence will certainly follow. This demonstrates beyond doubt, that the control of the fæcal mass is vested in this muscle. Its action seems to be twofold; first, that of preventing peristalsis forcing the fæcal contents out before the proper time for defæcation has arrived, and, secondly, to assist in the expulsion of the same in conjunction with the expiratory muscles, when normal defæcation does occur. It is obvious, then, in long standing cases of constipation where an action does not occur except at long intervals, a large fæcal mass may collect in the sigmoid, rectum and, not infrequently,

in the colon. This, not infrequently, brings about a temporary paralysis of the bowels, and, to a certain extent, a loss of its sensibility and tonicity. The fæcal mass not being expelled as nature intended, becomes dry and hard from the absorption of water, and thus acts as a foreign body, causing both pressure and irritation, which not infrequently results in ulceration, abcess, or one of the many forms of rectal diseases. The mass presenting at the sphincter being large and hard, the muscle is unable to grasp and expel it, consequently it acts as a direct irritant to the muscle, causing it to keep up a continued spasmodic contraction in its endeavor to expel it; as a result the muscle becomes hypertrophied and very strong from this additional work. As a result of this, it becomes a barrier, rather than of assistance in the act of defæcation, so much so that the enfeebled bowel, together with the assistance of the powerful expiratory muscle, is unable to overcome the spasmodic condition and allow the presenting mass to be expelled, and what was once a voluntary obstruction becomes one beyond the power of the will to entirely remove. In many cases the upper part of the large intestine performs its duty while the lower portion refuses to act. Not infrequently after the sphincter has taken on this unusual condition, a purgative will frequently act as an irritant. When the external sphincter muscle has been thoroughly dilated, one being careful not to lacerate it, it at once, instead of acting as an impassible barrier, offers only passive resistance, sufficiently strong, however, to prevent peristalsis causing unpleasant accidents, yet not strong enough to resist the power of the expiratory muscles when brought into full play during defæcation. As a result of this, the large fæcal mass which had collected can be expelled, thus relieving the constant irritation, and the tonicity and sensibility of the bowel will again be restored from the pressure, being removed from the neighboring nerves.

Dilatation may be performed in two ways, either by immediate or gradual divulsion, the first to be done under an anæsthetic, by inserting the two thumbs into the anus and stretching the muscle thoroughly in every direction. Gradual dilatation is selected in cases where an anæsthetic is deemed unsafe, and where the patient's consent cannot be obtained to take the same. This is done by soft rubber bougies. I usually begin with a No. 6, unless the muscle is unusually tight, gradually increasing the size until a No. 12 can be introduced easily. This performance should be done two or three times weekly. It is well to pass the bougies regularly after the immediate divulsion as well, that the muscle may not regain its power too readily. I have frequently noticed that the withdrawal of the bougies was followed by copious movement of the bowel. This was probably due, not so much to the divulsion, as to the stimulating effect of the bougies.

ABDOMINAL MASSAGE.

This I regard as a very essential feature in this treatment. Massage is quite ancient, having been practiced by Hypocrates. It was not until quite recently, however, that the physicians at home and abroad recognized in it a powerful agent, and by giving it their scientific attention, have lifted it out of the hands of the "charlatans" and "robbers," where it had long been left. I have been practicing it extensively during the past two or three years, in connection with dilatation. In the treatment of constipation I am of the opinion that it is a very valuable adjunct to the treatment.

With the patient in a recumbent position on a table, which can be manipulated so that the head may be raised or lowered, that the intestines may be changed from one position to another, I make gentle but firm pressure with the palm of the hand and ball of the thumb, beginning in the right iliac fossa, I follow the course of the colon into the left, accompanying the pressure by kneading the parts thoroughly with the fingers. This should be continued for at least ten minutes, and should be done every other day, or at least twice a week. It is well, also, to exercise the small intestines if a loss of tonicity is suspected. The patient cannot do this himself, because every effort will be followed by contraction of the abdominal muscles which prevents deep manipulation. If the patient is unable to have a masseur, a substitute, I would recommend that he take a metal ball weighing from three to five pounds, covered with cloth to prevent chilling of the skin and roll this over the course of the colon daily. Massage benefits the patient first, by restoring tone to the fatigued muscles; second, it loosens adhesions; third, excites the intestinal glands to renewed activity; altogether assisting normal peristalsis to take place.

ELECTRICITY.

Electricity has been highly recommended by many writers on constipation, and I have tried it with varying results. The galvanic and faradic currents each have their respective champions, some preferring the continuous and others, the interrupted current. One recommends one pole to be placed over the abdomen, and one over the spine. Another prefers one over the spine, and the other per rectum. While I do not have much faith in the use of electricity as an independent treatment, I do believe I have derived some benefit from it in connection with dilatation and abdominal massage. Its action is somewhat similar to that of massage, that of increasing muscular tone and glandular activity.

The other features in this treatment are to be carried out by the patient himself under his physician's directions. These, doubtless, are

more or less familiar to you all. The first and most important of these is the establishment of a fixed hour daily for the bowel to act. This may not be accomplished at first, but if the patient will persevere by going to the closet daily at the same hour, and devote his entire time, while there, to the expulsion of the fæcal contents, and not make it a reading room, he will soon bring about the desired results. Second, another important feature which I insist upon, is that my patient take plenty of out-door exercise, and if he is so situated that he can attend a gymnasium, I recommend that he do so. There is little doubt that the Germans who spend much of their time in out-door sports, suffer much less from constipation than we Americans, who do not have time for such things, much to our detriment.

Third, correction of errors in diet. This feature is also essential to the success of the treatment. Foods known not to agree with patients should be discarded. Meals should be served daily at regular hours and under pleasant surroundings. A change in the diet is also required. This is too frequently demonstrated in schools and public institutions, where a fixed diet obtains. I will not have the space nor time to lay down a fixed diet list, but will say that it should consist, in so far as possible, of easily digested foods intermediate between meats on one hand, and milk on the other, and in children, proportionately rich in fats, albuminoids and sugar, while poor in starches.

Fourth, cold baths. If possible, the patient should take a cold bath daily, followed by thorough rubbing of the skin with a rough towel. This assists in the treatment of the constipated condition by stimulating peristalsis and opening of the pores of the skin that proper assimilation may take place.

Fifth, dress warmly. It has been frequently noticed that the constipated condition gets worse during cold weather; this is partially due to the cold, and teaches us the necessity of dressing properly.

Sixth, change of climate or occupation. It has been frequently noticed that patients travelling from one portion of the country to another or those who follow a sedentary occupation, became afflicted with constipation. Admitting this to be a fact, it seems obvious that in certain obstinate cases the condition might be improved from a change of climate, or, if necessary, of the patient's occupation.

I now desire to briefly review the history of a few cases treated by the non-medicinal method:

Case No. 1. Lady, aged 32, mother of three children, no hereditary or specific history; clerk for several years in large book concern. She came to me to be treated for chronic constipation; said she had suffered for three years from this trouble; at times she would have only one action a week; when this occurred she suffered from severe attacks of

headache, dizziness and nausea, especially when she stooped down to pick up an article; appetite poor; digestion impaired; all this she attributed to her constipated condition. Fæcal discharges dry, hard and difficult to expel. Had consulted a number of physicians who prescribed a number of remedies, some of which afforded temporary relief but no permanent benefit. At times she became stupid and inattentive to business, as well as melancholy, and she was uneasy lest she become worse and lose her position.

Examination revealed no local disorder further than a spasmodic condition of the sphincter ani. Diagnosis: Chronic constipation as a result of irregular habits, sedentary occupation and, possibly, the use of too many cathartics.

Treatment: Patient anæsthetized and sphincter muscle thoroughly stretched. Patient ordered to remain in bed two days until soreness subsided; at the end of two days she returned to business, with instructions to return to my office every other day that I might give her abdominal massage. She was then instructed to a plan I follow out in the treatment of all cases of constipation, to go to stool at the same hour daily, not eat stimulating or highly seasoned food, and to take a glass of cold or warm water, or eat fruit every morning before breakfast. Her bowels moved naturally the second day, and the headaches and dizziness were relieved. In this case the massage was kept up for four weeks, when she was discharged with instructions to return if sl had any further trouble. Six months after this I met her and she in formed me that she never felt better in her life.

Case No. 2. Male, age 40, occupation fire insurance agent, busy in office from early morning until late in the evening, gave the following history: His bowels would act, usually, not more than once in two weeks. Of late he had become quite irritable towards his family and indifferent to business, which was unlike him. At times he felt so melancholy that he contemplated suicide, but that he resisted this desire on account of his wife and daughter. These melancholy attacks came on when an action had been deferred for several days, during which time he suffered from the most severe form of headache. He further informed me that up to the time he entered the insurance office, his bowels had moved regularly every morning.

Examination revealed no local disorder of the rectum, or constitutional cause so far as I could detect; accordingly I made a diagnosis of habitual constipation from irregular habits.

Treatment: Operation of dilatation advised and consented to, which was performed as in previous case. After-treatment consisted of abdominal massage twice a week, alternate with the introduction of the soft rubber bougie, and usual instructions to correct errors in habits and

diet. He commenced to improve immediately, both in appearance and disposition, and his wife informed me that he was like a new man since the operation. This patient was discharged ten months ago, and remains well up to date. He adheres most rigidly to my instructions.

Case No. 3. Married lady, age 30, married four years, no children; said she had been a slave to constipation for six years. She suffered much from ovarian troubles. Her physician informed her that she had a misplaced uterus; the most annoying symptom of late, however, was her inability to void her urine, independent of the catheter, which caused her much pain. Her physician wrote me a letter, stating that, in his opinion, the constipation was due to stricture of the rectum.

Examination revealed an enlarged and inverted uterus; mouth of the urethra sensitive and inflamed; tenderness in the region of the ovaries; large fæcal accumulations in both sigmoid and rectum. I asked patient to void her urine, which revealed the presence of considerable pus, a small amount of blood, with an absence of sugar and albumen. I made a thorough digital and ocular examination of the rectum, but could find no stricture or other local disorder further than a few fissures at the margin of the anus, which kept up the spasmodic condition of sphincter.

Diagnosis: Constipation resulting from the spasmodic condition of the muscle, which was aggravated by the pressure of the fæcal mass on the intra-pelvic vessels and nerves.

Treatment: I thought best to try and relieve her of this constipated condition first, and if the uterine and ovarian symptoms did not disappear, I would refer her to one of my gynecological friends that she might have the uterus, tubes, ovaries, and other irritating and unessential organs removed. Accordingly the patient was anæsthetized and sphincter thoroughly divulged. Rectum and sigmoid flushed with soap-suds, which was followed by the discharge of a number of hard lumps of fæcal matter. The patient was placed in bed immediately after I had applied a solution of silver nitrate, twenty grains to the ounce, to the fissures. Every other day I introduced a number ten rubber bougie. The abdominal massage was given every other morning by a competent nurse. The bladder and ovarian symptoms began to subside immediately, but the urine had to be removed with the catheter for three or four days after the operation. At the end of three weeks the patient voided her urine without pain. Fæcal accumulations had disappeared, bowels moving naturally every morning, while the bladder and ovarian irritation was entirely relieved, and I firmly believe they were due directly to the pressure of the fæcal accumulations. The abdominal massage was kept up for six weeks, at the end of which time she was discharged, feeling perfectly well. I received a letter from

her eighteen months later stating that she was doing nicely, and never felt better in her life.

Case No. 4. Male, age 35, came to me to be treated for chronic constipation. He had the ordinary symptoms which usually accompany this disease.

Treatment: Abdominal massage, dilatation and galvanic electricity, one pole on the spine, and the other on the abdomen. Patient made a good recovery.

Case No. 5. Young lady, clerk in store, had become constipated since she had been in the store. Said the strongest purgative frequently failed to move the bowels, and when they did, the movement was unsatisfactory. Patient looked thin, complexion muddy, and digestion impaired.

Treatment: Dilatation, abdominal massage twice a week for four weeks. The patient was instructed to take an early morning walk, go to stool immediately after breakfast, and not to eat any highly seasoned food. The result was an improvement from the beginning, and at the end of four weeks, when she was discharged, her appetite was good, her complexion better, and the bowels moving of their own accord daily.

It would be unnecessary for me to enumerate more of these cases, all of which are more or less similar in detail. I will say, however, that I have treated, during the past two or three years, quite a number of cases of constipation by this method, taking them as they come, and the results have proven highly gratifying to my patients as well as myself. The results which I have attained by this method of treatment, demonstrate to me, beyond the possibility of a doubt, that there is a method of curing many, if not all cases of chronic constipation, independent of the use of strong purgatives, and the various medicines which are indiscriminately used by many in their endeavor to cure this annoying condition.—*The Medical Herald.*

A CASE IN PRACTICE.

By A. A. SAUNDERS, M. D., CAROLINA, R. I.

AT 9 A. M., Feb. 3, 1893, I was called to see Frank Tanner, sixteen years old. The history of the case obtained from the family was to the effect that he came home from the Agricultural College a Kingston, three or four days before, complaining of a slight frontal headache.

He had remained at home during these three days, making only a little complaint of his head, had persued his studies, had eaten and

slept well as far as they knew; had done his evening chores the night before, but during the evening, while working upon some algebraical problems, said he could not *see* well, could not *think*, and asked his sister to work the problems out for him. While she was doing so, he was lying upon the lounge and for a while was very quiet, but became a little uneasy, and made some remarks that indicated a little aberration of mind. At 9 o'clock he retired. Nothing was heard from him during the night. In the morning his mother found him wandering about from room to room in a dazed condition, talking incoherently, and occasionally exclaiming "My head! Oh! my head."

I found him in bed in a semi-conscious condition, extreme pallor of face, cold to the touch, tossing from side to side, contracted pupils, a jerky thready pulse and a temperature of 98° F. I inquired of the family about any possible injury to the head he might have received, but elicited no information in that direction. I gave an unfavorable prognosis, and suggested counsel if desired.

At noon he had sunk into a profound coma; he had flushed face, more volume to the pulse, but it was intermittent and his temperature was 101° F. There was no paralysis.

At 3 P. M. Dr. Earle met me at the bed-side. The changed conditions from my noon visit was a temperature of 104 °F., a weak fluttering pulse that could not be accurately counted, a beady perspiration on face and neck, dilated pupils, and quick, shallow, labored breathing.

In the interval between this and my previous visit I learned, that he had received a slight injury at the school, by receiving a blow on his head at bridge of nose, by running up against a water pipe. The family had not known of this injury, but remembered he had blown a little bloody mucous from his nose for the first day or two of his being at home. No outward bruise could be seen. He continued to sink rapidly and died at 9 o'clock in the evening. No autopsy could be obtained.

THE RESORCINO ACETATE OF MERCURY IN SYPHILLIS.

ULLMMAN.

IT is a yellow powder, insoluble in water, mineral acids and fat bodies.

Ullman has used it for hypodermic medication in syphilis. He thinks that it is a very good preparation of mercury in view of the short duration of the treatment. The intensity of this locally acting

remedy places it in the same class as thymol-acetate of mercury.

Ullman has used the following prescription for injections:

Resorcino-acetate of mercury,	5 gm. 60
Liquid vaseline, ...	5 gm. 50
Lanoline anhydrate, ...	2 gm. 00

One cubic centimetre contains O gm. 387 of the metal.

The liquid should be heated to 25° C. before the injection. One injection should be given weekly.

The tri-bromo-phenacetate of mercury is used by the same author in syphilis and administered hypodermically. This is Ullman's prescription:

Tri-bromo-phenacetate of mercury,	6 gm. 50
Liquid vaseline, ...	18 gm.

This emulsion should be shaken immediately before using. More than O, 5 CC of this liquid should not be injected in the same place.

Injections once a week. The quantity injected at the same time should not exceed 1 CC of the liquid. O gm. o 78 of metal. (*Rep. de Pharmacie, March, 1893.*)

CONTRIBUTIONS TO THE STUDY OF ACUTE ARTICULAR RHEUMATISM.

By SAHLI, CORR. BL. f. SCHWEIZER AERTZE, XXII, 1892.

SAHLI had an opportunity to make a post mortem examination in a case of articular rheumatism fourteen hours after death. He found, besides the joint affections, recent endocarditis, pleuritis, pericarditis and a tume-faction of the bronchial-glands, nowhere suppuration. From the affected organs and the blood a morphological culture of the staphylococcus pyogenes citreus with another coccus could be produced. S. is of the opinion, that the cause of acute articular rheumatism can be found here. This would lead us to believe either a debilitated suppuration coccus, or a specific, to the suppuration coccus allied micro-organism to be the cause of this affection.—*Brückner*, (Dresden).

TREATMENT OF CANCER BY ARSENIC

By DR. LASSAR.

AT the last meeting of the Medical Society of Berlin, Dr. Lassar exhibited a patient whom he had cured of cancer, with arsenic. It is well-known that this treatment has been tried considerably, but the results have so far, not been satisfactory, which is due.

perhaps to the cause, that the cases were unfavorable or the treatment was not applied methodically or with permanency.

I made the first trial with this treatment in 1889, in a case of multiple cancer of the face, incurable by chirurgical intervention. In this case, as well as in another, the treatment with arsenic was followed by a reduction of the tumors; the diagnosis of cancer had first been made positive by microscopic examination. The cure effected in these two cases is strong evidence of Dr. Lassar's success.

In regard to the history of the patients, Dr. Lassar produced drawings and photographs made in the beginning and at the end of the disease; the tumors had disappeared entirely. In these patients, judging from the microscopic preparations presented to the society, the presence of cancer was beyond a doubt. One patient was admitted to the hospital in the beginning of October, with a tumor of the size of a nut. Now at the place of the tumor, a scar is the only thing that can be seen.

In another case, an old coachman, the cancerous ulceration had been much improved, and had been reduced several centi-metres. This case was also demonstrated by drawings and photographs. The arsenic can be given internally, or hypodermically. (*Deutche medicinsche Wochenschrift 26 November, 1892, after the Vratch.*)

SURGERY.

COLLES' FRACTURE.

BY CHARLES O'LEARY, A. M., M. D.

Read before the R. I. Medical Society.

THE subject of Colles' Fracture was discussed before the Society by Dr. O'Leary. He gave as a reason for presenting the subject: 1. The frequency of the accident; 2. The indifference with which it is treated by surgeons; 3. The bad results that have often been brought to his notice, by this indifference—and by the neglect of careful and judicious treatment—and the great permanent injury resulting to the patient from the neglect of proper treatment. He cited *Hamilton*, who in eighty-seven cases presented to him after treatment, found only sixteen who were free from some imfirmity, or impairment of the wrist-joint and hand. He also referred to the authority of that eminent surgeon, *Valentine Mott*, who stated that even in the hands of the most experienced surgeons and with the greatest care, deformity will result more or less. His own experience for years had confirmed him in

the belief that the fracture is the most common of fractures; that it is often treated as a slight accident, and that the result in many cases coming under his observation has been a permanent affliction to the patient, and a lasting opprobrium to the surgeon's skill.

The manner in which the accident occurs was then described, and reference made to *Dr. Colles* of Dublin, who first explained anatomically the nature of the accident in 1814. Surgery has since then only confirmed the description given by Colles, and has designated the fracture by his name.

The Doctor then illustrated on bones of the hand and forearm the anatomical relation of the parts concerned in the accident, and the manner in which the force applied to the parts produces the fracture. He illustrated the normal Colles fracture as Colles described it, and lastly he pointed out the deviations therefrom due to the devious directions of the force.

He referred to the rare chance there is of making a dissection of the parts, immediately after injury, and directed special attention to the investigations of *Professor Moore* of Rochester, *Drs. Pitchers* of Brooklyn and *Roberts* of Philadelphia, who have been favored with the opportunity of dissecting the parts, and who have by their studies been able to elucidate any point of importance bearing on the injury in the esssays they have published. These essays he deemed of superior value to any teachings found in standard surgical works.

Doctor O'Leary endeavored earnestly to make clear to his hearers, by anatomical illustrations, the line and form of the fracture, the anatomical disturbances of the parts whereby the deformity, known as the "Silver Fork," and the deflection of the hand to the radial side are produced, and the mechanism whereby the normal relations of the parts are restored. This seemed to him the most important point in his discussion of the subject.

In regard to treatment, he emphasized the great necessity of putting the parts in normal apposition, and for this to be done properly; he deemed anesthesia advisable. To keep the parts in apposition, a great variety of methods were in use. He has been in his practice from early years averse to the use of splints. He did not condemn their use; the necessity of them should be left to the surgeon in each particular case. Of late he seldom uses any, as he has found in many cases wherein he has been consulted, that the bad results might fairly be attributed to the long use of splints. A compress and bandage seem sufficient; often one thickness of cloth, with strong adhesive *Mead's* plaster over it, allowing hand and fingers to be free. He mentioned the early exercise of the hand; for women in the use of the flatiron as an occupation to take up their attention, and exercise

their fingers; for men walking and the use of a thickheaded cane, that they must grasp and hold with the fingers; as one of the common bad results he has noticed is the complete or partial disuse of the fingers.

SURGICAL SOAP.

By H. T. HANKS, A. M., M. D.

3 parts best commercial green soap.
1 part 95 per cent alcohol.
1 part glycerine.
1 part water.
1 drachm oil rose geranium to each part of alcohol.

—*N. Y. Med. Rec., Jan. 7, 1893.—Epitome of Medicine.—The Pittsburgh Medical Review.*

BACTERIOLOGY.

THE DIFFERENTIATION OF THE BACILLUS COLI COMMUNES AND THE BACILLUS TYPHO ABDOMINALIS.

LUKSCH (*Centralblatt f. Bacteriologie u. Parasitenkund* xii, 1892, p. 47) gives the results of his study of these bacteria. In their cultural characters the same conclusions have been known for some time, but in their morphology he points out a difference not heretofore considered in differentiating these bacteria. The motility of bacteria is due to the presence of minute hair-like appendages called flagella. On the bacillus of typhoid fever Luksch found as many as from eight to twelve of these delicate filaments, while on the bacilli coli communes he could not find more than three flagella and usually a less number. He also found that the flagella could be stained much more readily on the typhoid germs than on the coli bacteria. The motility of the typhoid bacilli was much more marked, as determined by the examination of fresh preparations, than that of the coli germs. The flagella were stained by the use of Löeffer's method, which consists in treating cover-glass preparations with a mordant before applying the staining fluid.—*The Medical and Surgical Reporter.*

THE PERFECT FEMALE FORM.

The following are the measurements of the perfect female form as given by a woman eminent in the science of physical culture: Height, five feet five inches; bust measure, thirty-one inches; waist, twenty-six and one-half inches; hips, thirty-five inches.—*Amer. Jour. Obstetrics.*

PHARMACY.

In charge of WM. S. CATES, Ph. G.

PROFESSOR Tucker, of the Massachusetts College of Pharmacy, gave a most instructive lecture on *Modern Bacteriology*, before the Alumni Association, on the evening of the 13th of March. On his preliminary remarks the *New England Druggist* says: "Reverting to the lecture of the evening, Professor Tucker said, introducing the subject of *Modern Bacteriology* that in his opinion the members of the Alumni Association and pharmacists at large should become better acquainted with the science he was about to discuss.

From its inception it had been almost exclusively in the hands of the medical profession, and their researches therein were still being actively pursued.

The ignorance of ostensibility and an otherwise well-instructed public had so far largely contributed to interfere with the extensive investigation the matter properly deserved. Their fear of disease germs was born purely and simply of the ignorance under which they labored as to the capacities of bacteria for good or evil.

Once this fear was conquered and the peoples of the civilized world opened themselves up to the necessary research, then might we look for that extermination and prevention of disease, the benefit of which he submitted, was before all cure. The branch, proceeded the professor, was infinitely too large to be any longer confined to the medical profession alone.

The time had arrived for the institution of specialization, and its division into the several departments of surgical, medical, hygienic, industrial, pathological and other bacteriology. Although the science is one which vitally interests both doctors and surgeons, their profession is no longer strong enough to support its increasing burden, and the moment had arrived when the assistance they required should be forthcoming and placed in evidence without further loss of time. It was, said the professor, not merely for the pecuniary advantage of the few that the subject under treatment should be thoroughly investigated, but it was an inquiry absolutely demanded in the interests of the public weal. Two ways were opened for the pharmacists to assist the medical profession. Doctors and surgeons need, in the first place, peculiar supplies, specially prepared, and more important than this, the medical profession require competent and reliable advice on bacteriological affairs. While physicians are masters of theory in this special department, they are eminently impractical, a result born of their inability to

devote the necessary researches and experiments as well as the time commensurate with their breadth and seriousness. Hence the prevailing need of reliable advice and opinions on the practical side of matters bacteriological. There was, added the professor, no need to go abroad for the study of the science. Among other places in the U. S., Boston contains two schools, the curriculum of which included a course in bacteriology; to wit, Harvard and the Institute of Technology, and he hoped that in a short time from now they would also have the advantage of one at the Massachusetts College of Pharmacy itself.

PILL COATING.

Sugar Coating. Place the pills in a large capsule or evaporating dish and add a mixture of equal parts of mucilage of acacia and warm water, about fifteen or twenty minims to each 100 pills; rotate them till they are uniformly moistened, then gradually add a mixture of forty parts of sugar, forty parts of powdered starch and twenty parts of powdered acacia, until the desired amount of coating is obtained, repeating the process if necessary. After the pills are partially dry, continue to rotate them in powdered talcum until polished and smooth, wipe off any superfluous talcum with a clean dry cloth.

Gelatine Coating. Pills may be quickly coated with gelatine, putting the pills in a warm evaporating dish, containing a small quantity of a ten per cent. solution of gelatine in water. Roll the pills about as quickly as possible, taking care that all are uniformly covered, but avoiding an access of the gelatine solution. Transfer them to a smooth piece of tin which has previously been covered with a thin coating of olive oil, taking care that the pills do not touch each other. Dry at ordinary temperature.

Paraffin Coating. Coating with paraffin may be accomplished by gently warming the paraffin in a capsule till it has barely melted, rolling the pills in it, rounding and polishing in a small gallipot.

Coating with Elm Bark. Slightly moisten the pills with diluted syrup, roll them in finely powdered elm bark, repeat if necessary and when dry, polish in a porcelain gallipot.

Coating with Cacao Butter. Melt the cacao butter by the aid of gentle heat, rapidly roll the pills in it by rotation, then roll in powdered starch. These pills should be kept in a cool place, as the heat of summer is liable to melt the coating.

Collodion Coating. Dilute one part of collodion with two parts of ether, and add to the pills in a large evaporating dish. Rapidly rotate the pills till they separate from each other, dry and expose to slight warmth. Repeat if necessary.

Silver Coating. Moisten the pills slightly by holding them in the hand over steam, being careful not to get them too moist. Throw the pills into a small porcelain gallipot containing silver leaf, using one leaf to six or eight pills according to size, close the cover and rapidly rotate until well covered. Polish in a clean dry gallipot.

In coating a large number of pills much better results will be obtained by coating a few at a time.

THE MORTAR AND PESTLE CLUB.

THE Mortar and Pestle Club held its monthly meeting at Gelb & Norton's Parlors on the 5th inst. The attendance was large and enthusiastic. Several guests were present from Boston.

The business session was shortened somewhat, in order that the members could have ample time to discuss a collation, provided by the entertainment committee. At about three o'clock the members repaired to the dining room, where they enjoyed a most excellent dinner, to say nothing of the *trimmings*. Mr. James O' Hare was selected as toastmaster, and a most wise selection it was, as it would be hard to find a more fitting gentleman for the position. In response to the witty and unique phraseology of the toastmaster in calling the different gentlemen to their feet, the speakers favored the members with some well chosen remarks, which were listened to with great attention and frequent applause.

It is certainly a great step in advance when so many pharmacists can be brought together and so much sociability expressed. As one of the speakers said in his remarks, it was nothing less than a miracle to see a lot of druggists who four weeks ago were almost entire strangers to each other, sitting around a dinner table and laughing at each other's jokes and forming a friendship that would endure to the end of time. Let us hope that the membership of this social club will rapidly increase, until it embraces every pharmacist in the state. Come in all of you who are hanging back and join our little club, and we will guarantee you will never regret it.

NOTES.

. At the session of the State Board of Pharmacy held in Providence on the 3d inst. the following gentlemen were granted certificates of registration: *James A. Muspratt, John F. Kehoe and Charles Joseph Scaulmaier.*

Examination of Urine for Sugar and Albumen.—The urine is first filtered and then heated to boiling in the test tube, and one-tenth its volumn of nitric acid is

added all at once, and not drop by drop, as is usually done. It is at once allowed to cool. A persistent, flocculent deposit indicates the presence of albumen. If the urine remains clear, add 10 or 12 drops of Alman's reagent, and heat for one or two minutes. If sugar be present, a dark brown coloration appears, which, where sugar is plentiful, may deepen even to quite black. In the case of a flocculent deposit, as stated above, let the urine cool, and filter off the albuminous precipitate before applying Alman's test. The latter is prepared as follows: Dissolve four grams of potassium and sodium tartrate in 100 grams of a ten per cent. solution of caustic soda. Place the solution in a water bath, add two grams of subnitrate of bismuth, and digest until the major part of the bismuth salt is dissolved. Filter and place in a colored flask, deep orange preferred, though blue will answer. The reagent thus prepared and preserved will keep indefinitely. The reaction is based on the property of glucose to reduce bismuth oxide in alkaline solution. It is accurate to one part of sugar in 2,000 parts of urine.—*Nat. Druggist.*

The change of system in chemical nomenclature, recently inaugurated by the American Association for the Advancement of Science, is a step toward simplicity in the existing conglomerate systems. Among the more notable changes is the spelling of the element sulphur and its derivatives. The letters *ph* are changed to *f*, and the new forms are sulfur, sulfate, sulfite, etc. Strange to say, there is no analogous change made in phosphorus and its compounds. In the halogen elements the final *e* is dropped, *i. e.*, the elements become chlorin, bromin, iodin, etc. The final *e* is dropped from all *ide* terminations such as oxide, chloride, etc. Glycerin is made glycerol; and benzol, benzene. The *ic* termination is used only for metals where it is necessary to contrast with *ous*; thus, ferrous and ferric compounds. As there is only one series of ammonium salts, we have ammonium chlorid, in place of the ammonic chloride now used.—*P. C. P. Alumni Report.*

DENTISTRY.

OXY-PHOSPHATE FILLING.

OXY-PHOSPHATE is a filling material much used and much abused. It is invaluable both for permanent and temporary purposes. The results obtained by its use depend wholly upon the manner in which it is mixed. According to the method of mixing, the oxy-phosphate will be either quick or slow in setting and either dense or crumbly in structure.

First then as to the mixing, *Ottolingui* uses rather a useful and novel mixing slab. He uses the side of a flat glass bottle, which should be provided with a tightly fitting rubber stopper. In the winter months with the temperature of the room at 70° F., the bottle has no especial advantage unless it is desired to make the material set either very slowly or very rapidly. If the bottle be filled with ice water, the setting will be slow in proportion to the cold, and vice versa, if filled with hot water, it will be rapid in proportion to the heat. This is more useful in summer when all of us have experienced much inconvenience because

of the rapid setting of oxy-phosphate, so that in warm weather a bottle of iced water is very useful.

In mixing the material, the method must depend on the use to which it is to be put. If a permanent filling is to be desired, put the powder and liquid on the slad separately, with a clean spatula; stir a little of the powder into the liquid until it produces a thin but well mixed material; add more and more of the powder till a thick smooth cream is produced. With the spatula continue to work the mass, when it will soon be observed that it begins to thicken and ball upon the slab. It now has a sticky feeling and may be used if it is necessary to depend on adhesion to the cavity wall. If this is not the case, further working will produce a mass which may be taken between the fingers and worked as we do gutta-percha, made into a roll and cut into pellets with the sharp edge of the spatula, it is in a moist conveinent form to be packed into a cavity. If oxy-phosphate is to be used for setting a crown, it should be similarly mixed, and used at the creamy stage without further kneading. For temporary purposes, where it is desirable that the filling may be readily removed at a subsequent sitting, as for example where it is used to cover an arsenical dressing in a shallow cavity, after the creamy stage, instead of kneading to produce thickening, continue to add the powder till the consistency is suitable for use. A mass thus made may seem the same as the other but really it is quite different. There is an excess of the powder and after hardening it can be more readily crumbled away. Oxy-phosphate as a filling material has many uses, the most important of which is as a mass to be interposed between a metal filling and the tooth itself. It must be remembered that, save in rare cases, gold or amalgam furnishes no support to frail walls. In fact the metallic filling depends largely on the strength of the cavity walls for its permanency. The oxy-phosphate, because of its adhesion, does support frail walls, and, therefore, required in all such cases. As a permanent filling oxy-phosphate may be used in cavities where the more conductive properties of metal would prove injurious to the dental pulp. In closing, let me ask you to use this material, not abusing it, and I am sure our efforts will be amply repaid by the results obtained.

FACTS WORTH REMEMBERING.

A good way to clean old dirty pieces of wax is as follows: First boil them in hot water, after the water is cold, cut off the dirt, which will be found on the under side, then boil again in clean water, putting a teaspoonful of sulphuric acid in, as soon as it comes to a boil. After a few

minutes boiling, cool. This time your cake will be as clean and bright as new wax. If you want it especially tough, add a little Venice turpentine.

Aristol and oil of cinnamon makes an excellent antiseptic dressing.

Oxy-phosphate is one of the best things to cement broken plaster.

If the mercury in the vulcanizer becomes divided, heat the vulcanizer till the mercury tube becomes filled and let it cool slowly.

A smooth glazed bowl is best for mixing plaster. If some of the plaster dries in the bowl, it will come off easily when water is poured in.

Before cutting an old plaster model, drop it in water, and it will cut easily. It should also be soaked a little if plaster is to be added to it.

To separate a model from an impression when they have been together for some time, first drop them in hot water. The steam generated will make separation easily.

SMELLING BOTTLES FOR COLD IN THE HEAD.

Dr. Tucker Wise (*Med. Record*) has found the following highly satisfactory: Fill a wide-mouthed ounce bottle with coarsely powdered carbonate of ammonia, and add euclyptia ʒss., dissolved in spirits of chloroform (double strength) ʒiss. This bottle should be applied to the nose as ordinary smelling salts every half-hour, and the pocket handkerchief used gently, when absolutely required, not violently trumpeting the nasal organ on every occasion that the passage becomes blocked. With the addition to this simple treatment a hot foot-bath may be taken, and steam inhalation at night.

A GEORGIA EDITOR WANTS HIS MONEY.

The following is from the pen of a Georgia editor who evidently had strong feelings on the subject: "The wind bloweth, the water floweth, the farmer soweth, the subscriber oweth, and the Lord knoweth that we are in need of our dues. So come a-runnin' ere we go a-gunnin'; we're not funnin'; this thing of dunnin' gives us the blues."—*Ex.*

Selections from Foreign Literature.

ANTISEPTIC TREATMENT OF WOUNDS,

By SIR JOSEPH LISTER,

In the British Medical Journal, Nos. 1674-1677.

IN a paper, read before the *King's College Hospital* the 18th of January, this year, the founder of antisepsis gives a full account of his views on this subject.

The author speaks first of the many bacteriological discoveries made since he first introduced antisepsis; he dwells at length upon the slight importance of *air-infection*, of the power of the body to resist infection, (*the theory of the phagocytes*) and that blood-serum is not as rich a soil for microbes as it was once considered to be. "We can, therefore," says Lister, "do away with all kinds of irrigation, even the spray, which is a sort of irrigation; our operations can be performed with the same simplicity as of old." He speaks of three things as being essential: *a clean operating field, clean sponges and instruments, and, finally, good antiseptic dressings.* The most interesting part of the two first propositions, is, that he once more maintains the superiority of carbolic acid, although he once was induced, as is well known, by the glowing accounts by the Germans of corrosive sublimate, to use it instead.

Lister does not now hesitate to place carbolic acid in the first rank as antisepticum, resting his opinion upon the experiments made by *Behring* and *Yersin*, which prove, that staphylococcus aureus and the bacillus tuberculosis, the two most formidable enemies we have to conquer, are more easily killed in the commonly used solution of carbolic acid than in solutions of corrosive sublimate. He afterwards speaks of the immense advantage of carbolic acid solutions, that they are absorbed through the skin, contrary to bi-chloride solutions, which wash off without any action whatsoever on the skin, where the fat has not been entirely removed by washing previously with ether. *Lister* does not use any soap and water, ether or alcohol for washing the field of operation; he uses only a 5% carbolic acid solution. The field of operation is afterwards covered with compresses, soaked in the same solution. The boiling or sterilization in steam of instruments he considers quite unnecessary, and contends that to immerse them in carbolic solution, previous to the operation, is quite enough. The fluid and discharge during the operation is taken up by sponges, washed out during the operation in a 2 1-2 per cent. carbolic solution.

In the hospital, the sponges are washed out after the operation in soda-solution and afterwards placed in a 5 per cent. carbolic solution. In his private practice *Lister* uses a different method, which he really considers to be the best. The sponges are washed out in common plain water, which is the easiest way to clean them. First, after this has been done, they are put in carbolic solution. *Lister* has had much trouble to prepare an antiseptic dressing that would answer the four requirements he makes upon a good dressing: (1) it should have positive antiseptic properties; (2) it should be so well immersed that its antiseptic powers should remain unchanged, and not be lost by evaporation or otherwise, before they are to be changed; (3) it should be entirely free from irritating particles, and (4) it should be able to absorb all the secretions.

Carbolized gauze is strongly antiseptic, but the acid would evaporate and irritate the wound.

He then tried bi-chloride gauze; but this did not fill the requirements either, as the secretion would dissolve enough of the bi-chloride to produce its irritating and poisonous effects. To overcome this, *Lister* tried to bind the bi-chloride by the aid of serum from horse blood, but this sero-bi-chloride combination was so difficult to produce that he abandoned the idea. The dressing now used by *Lister* makes a theoretical and complicated impression. It is chiefly a carbolized gauze, impregnated with a double salt of cyanide of mercury and zinc. He used the mercuric cyanide at first, which is a very soluble and strongly antiseptic salt, but it was too irritating, and so he decided to use it in the form of the double salt, which is but slightly soluble. Rolls of gauze from three to six yards in length are folded in eight folds; every other fold is sprinkled with a 5 per cent. solution of carbolic acid, and is afterward rolled up in a piece of mackintosh, in order that the whole piece may be thoroughly wet.

The gauze is now spread out and is impregnated with the double salts and a coloring material; the gauze is again rolled up and worked for a few minutes, until an even coloring is produced over the whole piece. This gauze, in eight folds, is now applied to the wound, and where considerable suppuration is expected, a piece of mackintosh is applied on the outside like the old *Lister* dressing, "so that the secretion may not soak through."

Lister may have simplified his antiseptic method in some few respects, and yet, one cannot but feel that his antiseptic dressing is more complicated and difficult than it was originally, while others bring out the grand original thought of *Lister* in more simplified, practical and safe forms.—*From Dr. Th. Rovsing, in Hospitalstidende, Copenhagen, March 22, 1893, by J. F. Haller.*

Experimental Researches into Pyo. and Hydrosalpinx Formations in Animals. By Wosknessensky. (Centr. Bl. f. Gynœk, XV. 42, 1891).

Under Slawiansky's supervision the tubes and horns of the uterus in rabbits, guinea-pigs and young pigs were partly singly, partly doubly ligatured. From double ligature of the tubes in rabbits severe hydrosalpinx would set in after 4-6 weeks; also, after ligature of the abdominal end in one tube. Injection of croton oil or of staphylococcus citreus in the tube, or in the horns of the uterus caused local excudation without extension into the peritoneum.—(*Brosin*), Dresden.

NEUROLOGY.

NEURASTHENIA.

By J. S. LEONHARDT, M. D.

WHEN the Committee on Nomenclature reported back to the Royal College of Physicians a list of eleven hundred and forty-six diseases as being the sum total of all the variations from health to which the human being may be subjected, neurasthenia was not mentioned. Neurasthenia then is not a disease, but simply a name applied to a large group of symptoms that occur in many diverse forms of functional nervous exhaustion, acute or chronic, local or general. I will not be so presumptuous as to think that a proper classification of all the symptoms of this condition are possible at the present time. If the reader will consent to a bird's eye view of an interminable swarm of neurotic exhibitions, he will not have wasted his time on this effort.

That some people are born with nervousness, that others acquire nervousness, and that some have nervousness thrust upon them, is a truthful parody. "Every school-boy knows," as Macaulay would say, that sick headache, neuralgia, fits, insanity, etc., "run in the family," and they are instances of those whose children will be born with nervousness. The youth in hot pursuit of knowledge, by way of the cormorant method now fashionable, and which enables him to rush into some business, trade, or profession, long before the soft down has left his face, or he who is engaged in the occupation of sowing a vast acreage of "wild oats," is accumulating for himself and his unlucky posterity a fund of nervousness so liberal and conspicuous that it will surprise him some day. The maiden who follows suit, but instead of engaging in some useful work lounges all day on a large, soft sofa in a

hot, dry atmosphere, reads fiction by Michelet, Zola, Flaubert, etc., *ad nauseam*, draws a "dead line" between good digestion and common sense by means of a corset many sizes too small for her already little pale body, who avoids the energy of the sun's rays as I would the poisonous exhalation of a Florida swamp, forgetting the voluptuous blush of the peach is caused by solar kisses, and daily baths of cold dew, she too will awake one day to a similar surprise. Such people are examples of acquired nervousness. When in agricultural districts the sky withholds its liquid treasures, and breathes instead the blighting breath of the hot south wind, tillers of the soil and owners of great herds have nervousness thrust upon them, especially when they remember their domestic and financial obligations. In the dead of night, when the assassin, the incendiary, and the libertine are busy at their infernal work, the morning will dawn not only on broken hearts, but shattered nervous systems. When gigantic institutions of commerce or finance tremble for a moment and then go down with a crash that reverberates throughout the civilized world, it echoes for a long time in the nervous systems of its victims, echoes that startle into activity or intensify already existing diseases such as cancer, skin diseases, epilepsy, insanity, drunkenness, suicide and crime.

This condition, while it may shorten and greatly embitter life, does not often kill outright, yet such an event is possible. A person lost in a dark, cold, stormy night, may die and not have been frozen to death; a swimmer, making violent efforts to save himself from a watery grave, may perish in the water and not have been drowned, both having been killed by acute nervous exhaustion. It is among chronic neurotics, the kind most commonly encountered in practice, that brilliant cures are often possible, for there are but few who are hopelessly incurable. If I were asked to describe one of these sufferers I should select one representative of a class "that is the heir of every true neurosis from insanity to toothache," the intellectual neurasthenic. He is a David rather than a Goliath; small boned, symmetrically built, with muscles small and fibrous, but wonderfully firm and filled with strength. He is energetic and untiring, can do the work of two in half the time, and get along with but little food or sleep. His head, sparsely covered with fine hair, is generally well shaped, and sometimes large. His senses are acute, his feelings sensitive, and his memory is a perfect mirror of the past, reflecting benefits and injuries with equal facility. He does not trifle with strong drink, neither does he tempt himself with any form of opium or other narcotic, for he is too observing not to have seen that in people of his trend "the chains of intemperance are but silken threads when compared with those of the opium or chloral habit." Such as he never reform; if they fall they are irretrievably

lost. He is eccentric, odd, brilliant abroad, and sullen at home. He is full of schemes and nameless peculiarities. He can plan and contrive enough to keep a regiment at work for a century, and yet rustle away ten or twenty years without being able to point to a single completed work, or, if completed, that bears the least resemblance to what it was at its inception. The bewildering pace of modern progress is even too slow for him, and he fancies that he is far in advance of the age, hence the want of appreciation that haunts him always and everywhere. This busy, restless, untiring mortal can usually find among his immediate or more remote ancestry numerous cases of rheumatism, gout, consumption, scrofula, syphilis, alcoholism, renal disease, spinal trouble, paralysis, fits, insanity, crime, etc. He sedulously avoids this disagreeable feature of his antecedents even before his confidants. He knows he is a little predisposed to nervousness, but is not pining for an opportunity to tell some one of it. He would hardly admit it to his physician, unless the medical man first read it in his bright twinkling eye, pallid cheek, and high collar bone when he is being examined for a goodly sized block of life insurance, for he is provident, and would not have his family insulted with the fact that he had left them unprovided with money in case of his death.

Let us follow this Proteus a little further. It is an interesting study.

Neurasthenia is not a disease proper, because it has no constant pathological lesion. It is known to most people by the name of general debility, nervous weakness, nervous prostration, nervous exhaustion, nervous debility, etc.; to physicians generally by the same and other names more learned and therefore dignified, such as neuratrophia, the neurotic diathesis, and its old army appellation, "irritatio spinalis." Among the characteristics of this condition may be mentioned a loss of tone, vigor, and finally material in the nerves of the brain, spinal cord, and great sympathetic. Its strange and always distressing symptoms find expression in the unnatural behavior of the sensory, motor, psychical, and visceral departments of the whole economy. It renders the subject an easy victim to the ravages of a multitude of diseases, especially epidemics. It accompanies a majority of chronic ailments in their career. It is present in all tardy convalescences. It frequently continues long after the acute or chronic disease that caused it has been forgotten, such as some zymotic disease or eruptive fever, an ancient diarrhœa, unimportant hemorrhoids, or an exhaustive discharge of any kind. It is intensely interesting to follow its curious wandering in the histories of families. Parents or ancestors afflicted with some form of nervous disease mentioned under my description of a neurotic person will transmit the most varied and peculiar forms of nervousness, and often to a very remote posterity. It is a regular attendant upon that

irregular and forced mode of life which is the legitimate offspring of the present age, an infant more lusty and boistrous in the United States than in any other country under the sun, not only on account of its climatology, but because it is here that physical and mental toil is so common and so excessive, whether it be the labor of the artisan, the intense mental concentration of the inventor, the financial prowess of the speculator, or the political strain of some renowned leader of a political faction. Its victims may also be found, and that by the score, among the physically and mentally lazy, retired farmers, suddenly enriched plebeians, innate fops, and also those who spurn the ordinary knowledge taught by the ministry of the physical sciences, and pose as students or heroes of occultism or the hermetic philosophy.

It frequently results from sexual diseases, abuses, and injuries; from mammary, uterine, and ovarian irritation in women; stricture, cystitis, and prostatitis in boys and men; from railway accidents, great grief, fright, or profound impressions of any kind. It commonly results from prolonged or aggravating irritation, mental or physical, such as discordant sounds, shapes and colors. Chronic catarrh, defective vision, being maimed for life, as suffering the loss of a limb, or a prominent and conspicuous disfigurement, are all common and prolific sources of most inveterate neurasthenias. I have known a luxuriant corn on the little toe of a little girl to initiate and maintain a most perplexing array of nervous symptoms. A seamstress found it necessary to change employer because, forsooth, in front of the window where she worked grew a deformed and very neglected old ash tree. She found herself unconsciously comparing its ugliness with a repulsive dwarf she knew, and it "made her awful nervous," as she expressed it. Intermarriage of blood relations will often arouse a surprising amount and quality of nervousness in both parents and offspring. It is most common among the middle-aged without regard to sex, in whom it may have been sleeping since early childhood, during which time it may have shown itself in the form of oversensitiveness, unusual beauty, precocity, or the reverse of the same, night terrors, or an infinite variety of strange fits and indescribable "spells." Houses heated with hot air are excellent incubators for neurasthenia. Hot, dry air in a room acts exactly like hot, dry air elsewhere. It absorbs the moisture of the body, causes a wrinkled, withered condition of the skin, and, being a poor conductor of electricity, allows the body to become surcharged with static electricity, rendering the nervous system abnormally sensitive to all impressions, both peripheral and internal. Extremes of temperature and sudden meteorological changes are potent in the causation of neurasthenia. In evidence of this, observe the condition of those who dwell in lands that have all weather and no climate —any great inland country.

Lest I might weary the patience of the reader, I shall forbear mentioning anything relative to the symptomatology, prognosis, and treatment of neurasthenia at this time.—*The American Practitioner and News.*

Lincoln, Neb.

A NEW SPECIFIC FOR PERTUSSIS.

A. B. BRIGGS, M. D.

IN an article on the treatment of Pertussis, by Dr. Sidney B. Staley, published in the *Times* and *Register*, for April 1st, the green tincture of thymus serpyllum is claimed to be a specific for the above disease. In about twenty typical cases treated with the remedy, the disease was under control in two or three days and checked entirely in five days. The dose of the green tincture is from xx to xxx m. for a child eight years old.

Other physicians who have used the remedy after this recommendation, expressed surprise at its quick and complete action. While the cure does not extend over five days, he thinks it advisable to continue the treatment for a few days after all the symptoms have subsided. He claims that it is a true specific; that it utterly and totally destroys the germ of the disease, and in proof of this says that "in no subsequent cold or cough following this treatment do we have whooping," but says his experience has been too limited to state whether the patient is susceptible to a subsequent attack. He thinks it possible that the thymol in the thymus is the active specific. While the remedy will cure the original disease, it is not a specific for the complications of pertussis, but by its prompt and quick action it does lessen the chances of complications. In experiments with the drug, doses as large as one dram have been given with no ill effect.

In summing up his experience he arrives at the following conclusions:

First.—Thymus Serpyllum is a specific for pertussis.

Second.—It acts in any stage of the disease.

Third.—It is also a nerve sedative and gastric stimulant.

Fourth.—It is necessary to use the green plant.

Fifth.—It is perfectly harmless in doses as large as a tea-spoonful of the tincture for a child of eight years.

Sixth.—The action is fully established in twenty-four hours and completed in five days.

Seventh.—Indications are that there will be no recurrence subsequently, at least not more often than in cases which run the full course.

When in want of a nurse don't stop and try to think where you can get one, but write, telegraph or telephone the Directory for Nurses 416 Broad street, Providence. and you will be insured good service.

The R. I. Medical Science Monthly.

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Books and monographs, native and foreign, on any of the Medical Sciences, will be reviewed without fail, according to their merits and the space at disposal.

Alterations in the proof involving an excessive amount of work, will be charged to authors at the rate of 60 cents an hour.

Contributors desiring Reprints or Extra Copies of the Journal can obtain them at reasonable rates by application to the Business Department immediately upon the acceptance of the article.

EDITORIAL.

THE efforts made by the medical profession of Rhode Island, Massachusetts and Connecticut for the past decennium to have some medical legislation enacted and the seeming failure of such efforts have prompted us to say a few words on the subject. All kinds of bills have been introduced from simple registry acts, to bills providing for examining boards, and proper regulation of the practice, styled somewhat after the medical laws of New York, Illinois and New Jersey.

But all measures have, so far, been promptly defeated and if they have passed the lower house, they have usually been strangled in the

Senate, either in committee, or by letting other measures crowd them out, or by other nefarious parliamentary tricks ; or else by a very close vote, as the vote of 1890–91, in the R. I. State Senate, where the Medical Bill was defeated by 16 against 14. How shall we account for this seeming unwillingness of New England legislators to pass any such reform measures? The answer is near at hand. The various members of the profession *have not* shown enough interest in such legislation to impress the legislators that it was really wanted by them and a thinking public, and some have even gone so far as to say, "personally, I do not care a rap whether any medical bill is passed or not; I am quite comfortable under my own little fig tree and will not bother myself about medical legislation." This is certainly a most unprogressive way for a medical man to talk to a legislator, and how shall we expect him to vote for such reform measures, when members of the profession can do themselves and the whole profession such injustice as to *openly express their apathy to the very man, the legislator*, whom we wish to convince that *we do want medical legislation* and *we want it now*. The work of seeing the bills through, has usually been left to committees, and very little support has been given those committees.

See on the other hand how the quacks work to prevent such legislation.

The following circular taken from the *Cincinnati Lancet-Clinic* explains itself, and shows one of the methods used by irregular practitioners to gain their ends. It also shows, to a certain extent, the reason why members of the legislatures are unwilling to commit themselves to support any reform measures:

NATIONAL CONSTITUTIONAL LIBERTY LEAGUE.

PUBLISHERS AND DISTRIBUTORS OF MEDICAL LIBERTY LITERATURE.

INCORPORATED OCT. 30, 1888. PROF. J. RHODES BUCHANAN, M. D.,

Boston, Mass.,———.

Dear Friend of Freedom:

I am reliably informed that a monstrous medical law is likely to be enacted by your Legislature.

"Forwarned is forearmed." We beseech you to bestir yourself instantly and incessantly in behalf of constitutional liberty, until this medical monopoly measure is overwhelmingly defeated by a righteously indignant populace. If you would profit by our years of successful experience, and desire our co-operation, begin the circulation of the accompanying remonstrance forthwith. When you have secured fifty influential signatures, with addresses and occupation, copy the addresses

complete and send them to us. Then hand or mail the remonstrance to your Representative or Senator.

In years agone the friends of medical freedom had no systematic selection of scholastic treatise on this subject. Now, happily, they have and it is extremely cheap, too. Scatter it broadcast now.

No Legislature ever has enacted, or ever will enact, a medical law in the face of the indisputable facts, irrefutable arguments, so clearly, comprehensively, exhaustively and eloquently portrayed in our "Medical Liberty Library," when it is prudentially presented individually to members by their constituents.

This obviously effective plan is a practical endorsement of the principles maintained therein. It emphasizes their importance, and reinforces the arguments proportional to the presenter's character as a citizen and influence as a voter. The average legislator is tired and "sick unto death" of the profession's pretended interest in the protection of the people. He has a supreme contempt for such sophistry. He knows that the people who are shrewd enough to elect him can be safely trusted to select medical methods and men.

Equipped with our League literature, the majority of them could, and would (with secret exultation), defeat the proposed medical bill with neatness and despatch. Therefore, it is of the utmost importance that your Senators and Representatives be thus immediately supplied with the Medical Liberty Literature described by the enclosed circular.

Hence, if you are unknown to your members, procure a few packages, and persuade some well-known and influential constituent of each to present or mail them to each member from your section of the State.

Also write or see your local legislators and urge them to oppose the medical bill by voice and vote.

Kindly keep us constantly advised of what you are doing and of the progress of the bill. Yours for Constitutional Liberty,

J. Winfield Scott, *Secretary.*

For these men, who make a living from the ignorant and superstitious and sometimes a very good living too, it is part of their business to spend money to prevent medical legislation. They combine, and fight and button-hole legislators on the highways, in the legislative halls, but chiefly in the quiet corridors and committee rooms, where their most *effective* work is put in, and after they have thus *explained* matters to the legislators, it is remarkable to see *how indifferent* said legislators have become towards the medical bills, and if we ask them point blank how they stand on the matter, "they guess they will have to vote against the bill." Are not past failures in securing medical legislation in New England legislation that would support decent medical men and nourish and encourage science and investigation and protect the

people against fraud, harm and ignorance due to: 1, an inexcusable apathy on the part of the profession; 2, the vigorous and *effective* campaign work of the quacks; 3, a false feeling of conservatism and a perverted construction of the word freedom?

OUR CORNER.

While other states, notably, Pennsylvania, are about to pass upon proper medical legislation, and have, by this time passed their very excellent bill, styled after the New York Medical Act, Rhode Island and her border states are struggling hard to get some kind of medical legislation. We published a copy of the Medical Bill recently introduced in the R. I. State Senate by Senator Comstock, embodying some of the features decided upon by the R. I. Medical Society in its instruction to the Committee on Legislation two years ago. The bill is a simple registry act, and ought to pass, and every physician in the state ought to do all he can to assist. Make it your business to see your senator and represenatives and tell them in plain English that you want them to vote for it. You can easily get a few personal friends to do the same, and, if such appeals are made, the representatives will begin to think that it is really wanted. The bill is still pigeonholed in the Senate, and is liable to come up most any day.

The death of Col. Shepard, of New York, recently, is one of the few instances on record, where persons have died during ether anesthesia. He was previously examined quite thoroughly, by the most competent physicians, but no disease of heart or lungs was found. His death, occurring suddenly during anesthesia, was set down as caused by congestion of the lungs. The reputation and high standing of Dr. McBurney and his associates is an assurance that Mr. Shepard died from unpreventable causes. This unfortunate occurrence is quite instructive to physicians generally. There is one deplorable fact about it, however; the newspaper reporters' long sensational articles and their efforts to tell the learned doctors things they didn't know and say.

It is getting to be pretty bad when reporters undertake to tell physicians about medicine. They are certainly a clever lot of fellows, but this is going too far.

The New York State Legislature is after the patent medicine venders. Two bills have recently been introduced to regulate the sale of patent medicines. The first bill authorizes the State Board of Health, upon receiving a fee of $50.00, for such services, to cause an analysis to be made by a practical chemist of any drug, medicine or mixture of drugs, herbs, or medicines commonly known as patent or proprietary medicines.

The second bill makes it a misdemeanor to offer for sale or sell any patent or proprietary medicine, not prescribed by a regular physician, without the examination and written approval of the State Board of Health.

The following is an abstract of the Medical Practice Act reported favorably in the Connecticut House of Representatives:

The bill provides that no person shall practice medicine, surgery or midwifery after October, 1893, until he has been registered, excepting dentists, employes of the United States Government, persons who shall furnish assistance in emergency cases,

physicians from outside the State called in consultation, chiropodists and clairvoyants who do not use drugs, medicines or poisons, Christian scientists and other healers who do not use drugs, poisons, medicine, chemicals or nostrums. Persons with proper references, graduates in medical colleges or bearing certificates of State medical societies may register on the payment of two dollars, but others must be examined by a commitee appointed by the State Board of Health. Enough physicians for three examining committees are to be nominated by the State medical societies. Applicants to practice medicine or surgery must pass examination in anatomy, physiology, medical chemistry, obstetrics, hygiene, surgery, pathology, diagnosis, and therapeutics, including practice and materia medica. Applicants for licenses are to pay the expense of the examining committees. Violations of the act are punishable by a fine of not less than $100 nor more than $300 for the first offence, and for each subsequent offence by a fine of not less than $200 nor more than $500, or by imprisonment for not less than 30 nor more than 90 days, or by both such fine and imprisonment; the fine is to be divided equally between the complainant and the State Board of Health.—*Providence Journal Correspondent.*

In the Forum for March, we find among other good things, two articles of very high order, written by physicians, whose eminence in the profession is undisputed. *Dr. Allan McLane Hamilton's American Winter Resorts* is both interesting and instructive and is a safe guide for those who have no settled opinion about where they are going for health or change. *Dr. Lewis A. Stimson's Short Studies of Great Men: Pasteur,* is one of those short glimpses of a great man's life and labors, trials and triumphs, which excite in us a profound respect for the unlimited possibilities in original research in our profession. *Dr. Stimson* has most happily pictured this great man and his immortal deeds.

MEMORIZING DOSES.

Dr. G. A. Wiggins gives the following rules:

1. The dose of all infusions is 1 to 2 ounces, except infusions of digitalis, which is 2 to 4 drachms.
2. All poisonous tinctures 5 to 20 minims, except tincture of aconite, which is 1 to 5.
3. All wines from ½ to 3 fluid drachms, except wine of opium, which is 5 to 15 minims.
4. All poisonous solid extracts you can give ½ grain, except extract of calabar bean, which is 1-12 to 1-4 grain.
5. All dilute acids from 5 to 20 minims, except dilute hydrocyanic acid, which is 2 to 8 minims.
6. All aquæ from 1 to 2 ounces, except aqua laurocerasus and aqua ammonia, which are 10 to 30 minims.
7. All medicated syrups you can give 1 drachm.
8. All mixtures from ½ to one fluid ounce.
9. All spirits from ½ to 1 fluid drachm.
10. All essential oils from 1 to 5 minims.—*Pharm. Record.*

The water-supply of Chicago has been pretty thoroughly ventilated in the medical press of late. *The London Lancet* sent a special commission to Chicago to investigate the matter and their report *in extenso* is before us. It is a voluminous report and the general conclusion arrived at by the commission is, "that the water supplied to Chicago from Lake Michigan is of good quality throughout, and provided that it be efficiently filtered and boiled, no chemical objection to its use as a potable water on the score of organic impurity can be raised.

That it is liable to very serious pollution so long as the vilest refuse of the city is thrown into the lake has already been pointed out, but there is no evidence to be gleaned from the results of chemical analysis that this, up to the present time, has actually been a source of mischief to the water. There is not sufficient information for considering accurately the effects upon health, though the high death rate of the city from typhoid fever needs inquiry. In regard to the water-supplies of Chicago from other sources—namely, two from Waukesha and one from the artesian well of Washington Heights—they are less well adapted for ordinary washing and manufacturing purposes, but in respect of organic purity they are equal, and probably far superior in character, to the ordinary supply. The waters derived from the pure sources of a spring or deep well may of course be more confidently recommended for drinking purposes, especially when it is known that a serious risk of the pollution of Lake Michigan exists."

The Lancet says further that the question of absolute freedom from disease-germs "can only be positively answered by bacteriological examination, and by the study of the effects of the water on those who drink it. No such bacteriological examination has been practicable in the present case, because of the length of time necessarily consumed in transporting the specimens from Chicago to London. The period so occupied would have sufficed for the occurrence of most important changes in the conditions of bacterial life upon which such an examination must proceed. The value of chemical analysis is chiefly due to its affording a very substantial ground of inference. Typhoid fever, cholera, and diarrhœa are the principal disorders which are disseminated by sewage-contaminated water, and in practice water receives such germs from sewage only.

The mortality statistics show that Chicago suffered from typhoid fever nearly eight times as much as London, in 1890, and nearly twelve times as much as London in 1891.

It is to be regretted that the commissioners did not also make bacteriological examinations of the water, for their report based upon chemical analysis only is incomplete, and the fact that they recommend "boiling and filtering before using it" looks like a condemnation. They strongly recommend that no ice should be used, as the ice contains germs, as *Prudden* has shown us. From this report, which, although incomplete, shows much zeal and enterprise on the part of our esteemed British contemporary, and from information gathered elsewhere, we must conclude that the water-supply of Chicago is unsafe, and visitors should bear in mind the warnings given above.

———

Dr. A. J. Longfellow, of Fostoria, Ohio, at the last quarterly conference of the M. E. Church introduced the following resolution :

Resolved, That the church purchase 400 little wine-glasses and each communicant receive the wine out of a glass that no other person has used, and the bread be passed on baskets or plates, and that it be not handled or broken by the preacher.

The doctor explained the possibilities of contagion from the old method, and the conference adopted his resolution without a dissenting vote.

This is undoubtedly a step in the right direction. Even an ordinary sense of cleanliness would suggest the propriety of abandoning the old method in favor of the new. We commend the doctor upon his step in practical hygiene, and would urge others to use what influence they have in having the custom of "mouth-to-mouth" communion abolished.—*The Cincinnati Lancet-Clinic.*

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We notice that some of our exchanges in giving credit allude to us as the *Medical Science Monthly*, please gentlemen don't leave off the *R. I.*

SOCIETY REPORTS.

ELEVENTH INTERNATIONAL MEDICAL CONGRESS.

ROME, ITALY, SEPT. 24th—OCT. 1st, 1893.

AMERICAN NATIONAL COMMITTEE.

A. JACOBI, 110 W. 34th St., New York, *Chairman.*

Circular.

New York, April 1, 1893.

The *North German-Lloyd*, 2 Bowling Green, N. Y., offers a reduction of 25 per cent. to the medical men going to and coming from the 11th International Medical Congress, on Steamer Werra, which is to sail from New York on August 5th and September 9th, and on Steamer Fulda, on August 19th. Both these steamers sail to Genoa. The same reduction will be made for the return trips in October and November, on the same steamers, and for the Company's Saturday, (off Bremen, Sunday off Southampton,) steamers.

The *Hamburg-American Packet Co.*, 37 Broadway, N. Y., 125 La Salle Street, Chicago, offers a reduction of 25 per cent., both over and return, for all its steamers during the year 1893.

The *Compagnie Générale Transatlantique*, 3 Bowling Green, N. Y., offers the rates which are allowed French officers, that is, $63.50 for an $80 accommodation and $91.50 for a $120 accommodation.

Five other lines decline to make any satisfactory arrangements.

THE PAN-AMERICAN MEDICAL CONGRESS.

The following official bulletin has been issued by the Executive Committee of the Pan-American Medical Congress:

Office of the Secretary-General, 311 Elm Street.
Cincinnati, April 2, 1893.

The Executive Committee of the First Pan-American Medical Congress promulgates the following information:

1. The First Pan-American Medical Congress will be opened under the presidency of Prof. William Pepper, M. D., LL. D., President of the University of Pennsylvania, at Washington, D. C., September 5, and will adjourn September 8, 1893.

2. The countries officially participating in the Congress are restricted to Argentine Republic, Bolivia, Brazil, British North America, British West Indies (including British Honduras), Chili, Dominican Republic, Honduras (Spanish), Mexico, Nicaragua, Paraguay, Peru, Salvador, Republic of Columbia, Republic of Costa Rica, Ecuador, Guatemala, Hayti, Kingdom of Hawaii, Spanish West Indies, United States, Uruguay, Venezuela, Danish, Dutch and French West Indies. Distinguished representatives of the profession from other countries are expected to be present as guests and to participate in the proceedings.

3. The general sessions will be limited in number, one for opening and one for closing the Congress, being all that will be held unless some necessity arises for a change in this particular. This arrangement will permit members to employ all of the time in the scientific work of the sections, which are as follows:

(1) General Medicine, (2) General Surgery, (3) Military Medicine and Surgery, (4)

Obstetrics, (5) Gynæcology and Abdominal Surgery, (6) Therapeutics, (7) Anatomy, (8) Physiology, (9) Diseases of Children, (10) Pathology, (11) Ophthalmology, (12) Laryngology and Rhinology, (13) Otology, (14) Dermatology and Syphilography, (15) General Hygiene and Demography, (16) Marine Hygiene and Quarantine, (17) Orthopædic Surgery, (18) Diseases of the Mind and Nervous System, (19) Oral and Dental Surgery, (20) Medical Pedagogics, (21) Medical Jurisprudence, (22) Railway Surgery.

The evenings will be devoted entirely to social features, the detailed announcements of which will be made by the Committee of Arrangements.

4. Membership is limited to the members of the medical profession of the Western Hemisphere, including the West Indies and Hawaii, who shall either register at the meeting or shall serve the Congress in the capacity of foreign officers. No membership fee will be accepted from any member residing outside the United States. The membership fee for residents of the United States is ten dollars ($10). All registered members will receive a copy of the transactions. Prominent students of the allied sciences will be cordially received as guests and as contributors to the proceedings upon invitation by the executive presidents of sections. Ladies' tickets will be issued upon application to registered members only, and will entitle the holders to reduced fare and to admission to all entertainments. Physicians of the United States should register at once, by remitting $10 to Dr. A. M. Owen, Treasurer, Evansville, Ind.

5. Papers are solicited, the hope being entertained that the programme will be largely taken up with contributions from outside the United States. Papers may be read in any language, but a copy must be furnished for publication in either Spanish, Portugese, French or English, and must not occupy more than twenty minutes in reading. An abstract not exceeding six hundred words must be furnished the Secretary-General in one of the above four languages, by not later than July 10. Abstracts will then be translated by the Literary Bureau into the three remaining languages, and will be published in book form before the meeting of the Congress.

6. The Congress of the United States has adopted a joint resolution whereby all the Governments of the Western Hemisphere have been invited by the President to send delegates to the First Pan-American Medical Congress, and has appropriated a liberal sum for the purposes of entertainment.

7. The reduced fare offered by all transportation companies on the occasion of the World's Columbian Exposition, to be held in Chicago, will be open to all persons attending the Pan-American Medical Congress. The Committee of Arrangements will endeavor to secure still greater reduction to members traveling between Chicago and Washington, and an effort will be made to arrange either excursions or circular tours for those who may desire to visit the great universities of the United States. All such arrangements are open to subsequent annoucement.

8. By arrangement with the committee at Rome the date of the Eleventh International Medical Congress has been so appointed that those who attend the meeting of the Pan-American Medical Congress may subsequently attend the former. The Pan-American Medical Congress will adjourn on the afternoon of September 8 ; a steamship will sail from New York on the following day, going by the Azores and Gibraltar, and enabling the tourist to reach Rome on the morning of September 20, where the Eleventh International Congress will be opened on the afternoon of September 24. It will thus be seen at a glance that in the period usually allotted to a summer vacation the medical tourist may spend a week at the World's Columbian Exposition, the next week at the Pan-American Medical Congress, the next week and a half with delightful companions in a voyage to the Mediterranean, the next few days

in witnessing the sights of Rome, and the following week at the Eleventh International Medical Congress. Special reduced rates for members and their families are given both ways on the trip to Rome, particulars of which will be furnished on application to the Secretary-General, 311 Elm street, Cincinnati, O., who is also a member of the American Committee of the Eleventh International Congress.

9. The best possible arrangements will be made with the excellent hotels with which the National Capital is abundantly supplied. The Committee of Arrangements will do its utmost to secure desirable rates and locations for members and their families. The headquarters of the Committee of Arrangements is at the Arlington Hotel, where communications may be addressed either to Dr. Samuel S. Adams, Chairman, or Dr. J. R. Wellington, Secretary.

10. Copies of the official announcement of the Congress, containing the Regulations and the names of all officers and committeemen of the General Congress and of the various sections, and residing in the various countries, may be obtained upon application to the Secretary-General, or to either of the members of the International Executive Committee, as follows:

Argentine Republic, Dr. Pedro Lagleyze, Calle Artes 46, Buenos Ayres ; Bolivia, Dr. Emilio di Tomassi, Calle Ayacucho 26, La Paz; British West Indies, Dr. James A. DeWolf, Port of Spain; British North America, Dr. James F. W. Ross, 481 Sherborne St., Toronto; Chili, Dr. Moises Amaral, Facultad de Medicina, Santiago; Costa Rica, Dr. Daniel Nunez, San Jose; Dominican Republic, Dr. Julio Leon, Santo Domingo ; Ecuador, Dr. Ricardo Cucalon, Guayaquil; Guatemala, Dr. Jose Monteros, Avenida Sur No. 8, Guatemala City; Hayti, Dr. T. Lamothe, Rue du Centre, Port au Prince ; Hawaii, Dr. John A. McGrew, Honolulu; Honduras (Spanish), Dr. Geo. Bernhardt, Tegucigalpa; Mexico, Dr. Tomas Noriega, Hospital de Jesus, Mexico; Nicarargua, Dr. J. I. Urtecho, Calle Real, Granada; Paraguay,———; Perú, Dr. Manuel C. Barrios, Facultad de Medicina, Lima; Republic of Colombia, Dr. P. M. Ibanez, Calle 5a Numero 99, Bogota; Salvador, Dr. David J. Guzman, San Salvador; Spanish West Indies, Dr. Juan Santos Fernandez, Calle Reina No. 92, Havana; United States of America, Dr. A. Vanderveer, 28 Eagle street, Albany, N. Y.; United States of Brazil, Dr. Carlos Costa, Rua Largo da Misericordia 7, Rio de Janeiro; Uruguay, Dr. Jacinto de Leon; Calle de Florida No. 65, Montevideo; Venezuela, Dr. Elias Rodriguez, Caracas.

By the Executive Committee,

Charles A. L. Reed,

Secretary-General.

SECTION OF GENERAL MEDICINE OF THE PAN-AMERICAN MEDICAL CONGRESS.

This unique assemblage promises to be one of the most important events that has occurred in the history of medicine in the Americas. Its success is assured by the large number of valuable papers already promised. The Section on General Medicine, which is one of the most important that has been created, bids fair to be one of the most successful in the entire Congress; and already many valuable contributions are in process of preparation, and will be read at the meeting in September. It is hoped, with the hearty coöperation of all physicians living not only in North but also in South and Central America, that the work in this Section will be memorable; and each physician living on this continent is requested to join this most important Section, and to prepare a contribution to be read before that body. It is especially requested that those intending to join this Section or to read papers shall at once send their names, with titles of papers, to the Secretary, Dr. Judson Daland, No. 319

South Eighteenth street, Philadelphia, Pa., so that they may be noted on the calendar and be given their appropriate places.

By direction of the Committee of Organization of the Pan-American Medical Congress, the following gentlemen have been elected an Advisory Council in the Section on Pathology: Drs. W. H. B. Aikes, *Ontario Medical Journal*, Toronto; Allen J. Smith, University of Texas, Galveston, Tex.; G. N. F. Nuttall, Johns Hopkins University, Baltimore; W. T. Howard. Jr., 304 Madison avenue, Baltimore; W. N. Gardner, Long Island College Hospital, Brooklyn; Ira Van Giesen, 137 W. Fifty-ninth street, New York; Thos. G. Lee, University of Minnesota, Minneapolis; Joseph McFarland, Philadelphia; Henry W. Cattell, Philadelphia; E. H. Wilson, Hoagland Laboratory, Brooklyn; James E. Reeves, 201 McCullen avenue, Chattanooga; Henry Dickson Bruns, Morris Building, New Orleans.

David Inglis, Secretary.

PROGRESS IN THE TREATMENT OF DISEASES OF THE EAR, NOSE AND THROAT.

By F. P. CAPRON, A. M., M. D.

READ BEFORE THE PROVIDENCE MEDICAL ASSOCIATION.

F. P. Capron, in reviewing the progress during the year, in *the treatment of diseases of the ear, nose and throat*, spoke briefly of the work of Drs. **Blake** and **Jack**, in regard to removal of the small bones of the ear. Operation not generally done and is yet an uncertain one.

Ear. Mastoid Operations.—Much advance in this field in some respects, and more attention now paid to such ear troubles than ever before.

Nose. Hypertrophic Rhinitis.—Cautery used very much less by most specialists. Electrolysis used considerably. Cauterization has caused much cicatricial formation, especially when strong and down to the bone. Electrolysis is better for some cases.

Influence of Diseases of Nose on General Health.—Headache, stupidity, melancholia, etc. are frequently caused by it. Removing adenoid vegetations helps general condition of some patients amazingly.

Hypertrophic Rhinitis is often cause of neuralgia. If in upper part it affects eye,—headaches are the result. Glasses are fitted in such cases, but of course without much, if any, benefit.

Hypertrophic Rhinitis interferes with nasal respiration and the filling of the lungs. Air presses on septum and deviation is the result. We do not remove so many spurs from septum or correct so many deviated septums as formerly; decided and extreme deflection calls for decided action. Narrow, contracted chests in children is often result. It is well to look after this carefully.

Reflex Neuroses are still recognized, but hold no such important position as two or three years ago. We have reflex asthma and undoubtedly, heart troubles, due to reflex action from nose.

Adenoid Vegetations are well worth looking after. These also hinder development. Treatment and operation do not differ much from old. Often it affects the ears, and deafness is caused by it.

Tonsils and Throat.—Uric acid diathesis is often associated with it. This is probably why remedies like ammoniated tr. of guaiacum and salicylate of soda are used.

Larynx.—Intubation has its followers. It just about holds the ground. Tracheotomy is also used. Still we scrape ulcers and use lactic acid, bi-chloride, etc., in cases of tuberculous laryngitis, and good results continue to be reported.

DISCUSSION BY DR. F. B. SPRAGUE.

The discussion was opened by **F. B. Sprague**, who stated the progress in Aural Surgery during the past year was as Dr. **Capron** had stated along the line of Middle Ear operations, a lengthy discussion of which was perhaps not as interesting to the general practitioner as to the Aural Specialist. The latest and perhaps the most interesting to all, is the operation for the improvement of hearing by removal of one of the bones of the middle ear, the smallest of the ossicular chain, namely, the stapes.

The first operation of this kind yet recorded, was done by Dr. **F. L. Jack**, of Boston, which occurred during an operation for the removal of carious ossicles for suppuration. In this case the Malleus and Incus had been already removed; the head of the Stapes was found carious, and in order to make a complete and thorough operation, it was necessary to remove this bone. After the patient recovered from the effects of the ether, it was noticed that she could hear better than before the operation, and the results appeared so promising that further research was continued, and the operation tried for improvement of hearing in non-suppurative cases, the results of which were certainly remarkable.

The Doctor thought he was perhaps more interested in the operation than many, as he had the pleasure of being with Dr. **Jack**, and watching the operation in most of his first series of eighteen cases which he reported in the *Boston Medical and Surgical Journal* last fall. He had learned through Dr. **Jack**, a few days since, that there had been permanent improvement in most of the cases. In some, however, the hearing had fallen off, but still remained better than before the operation.

In regard to removal of the ossicles for the relief of otorrhœa, we bring in one of the principles of general surgery, that where necrotic tissue or carious bone exists, it should be thoroughly removed, in order

to cure the suppurating process, and in chronic suppurative Otitis Media, the disease is nearly always due to caries of a part of one or more of the ossicles. The Incus being involved in about 80 per cent. of the cases, and where the carious bone and granulation tissue is entirely removed, the suppuration ceases.

As to operations upon the mastoid portion of the temporal bone, we are to be guided by general surgical principles. If pus existed, it should be evacuated, and if softened or carious bone was found, it should be entirely removed by the curette. As to the method of operating, he would give a description at some future meeting where he wished to report some cases of the disease.

There had been nothing especially new in operations upon the nasal cavities; he thought the chemical caustics were becoming more used in the hypertrophic conditions, and the galvano-cautery not so much as previously.

Adenoid vegetations in the vault of the pharynx are unquestionably the cause of many reflex symptoms, as mental inactivity and dullness, and many other symptoms showing depression of the nervous system; also by its interfering with the passage of air through its natural channels—the nasal cavities—whereby the chest becomes contracted and the lungs are not properly expanded, and the air, being obliged to enter through the mouth, does not become sufficiently warmed. It thus weakens the lungs and renders them susceptible to the dangerous diseases to which they are exposed. Their removal should be advised in all cases.

As to the tonsils and pharynx nothing very new can be said. The tonsils, when they become hypertrophied, oft-times interfere with the breathing and voice and of all functions of the throat, besides being very susceptible to acute exacerbations and attacks of Diphtheria. They should be removed.

DISCUSSION BY DR. H. J. POMROY.

Connected with diseases of the trachea, are those of the thyroid gland. In atrophy of the thyroid, we have that peculiar disease called myxœdema. One year ago I called your attention to the success of the treatment of myxœdema by the hypodermic injections of the juice of the thyroids of animals, and the transplanting of a thyroid to the myxœdematous patient. During the past year attention has been called by English observers especially, to the good results obtained from the injection of fresh thyroids of animals. After having been fed on thyroids, the symptoms of myxœdema have gradually disappeared. It is too early to speak of the permanency of these results.

TRAKEYOTOMY DAN.

Trakey—yes it are a cur'us name.
But stranger, mixed up with it are a story, just the same.
Yer see, Gibson were a doctor es hed a brain to think,
An' hed all the village practis afore he tuk to drink:
But he an' his Financey hed a little fallin' out,
When she ups an' weds a feller es was nothin' but a lout.
The doctor kinder weakened and tuk ter drinkin' gin,
An the way that he kep' at it wus a most alfired sin.
He didn't kere fur nuthin, but would stag'er through the street,
A cussin' an' a hollerin' like I never seed the beat.
The parson preached about him es a warnin' to all men,
While Gibson, from the church door, hollered out a loud amen.
But like thet Rip Van Winkle, o' whom you've heered, no doubt,
He luved the little children that followed him about;
So when Trakey, playin' yonder, wus takin' awful sick,
He cum up home ter treat him, but I chased him double quick,
'Cause we'd sent for Dr. Sloper, a goodish sort o' man,
Ter physic lettle Trakey, who's Christyun name es Dan;
But somehow, the boy grew worser, an' Sloper sed he'd die,
So we tho't we'd send fur Gibson, an' let him have a try.
I cudn't quite believe it, when I seed him comin' in
So dignified and sober, like afore he tuk ter gin.
Trakey riz to greet him, but fell back white and weak,
Then try'd ter tell him somethin', but cudn't even speak.
His breath grew short and shorter and he struggled hard for air,
A-clutchin' at his windpipe, in a sort o' mute dispair.
Gibson seemed most sorrerful, an' slowly shook his hed,
Mumbled somethin' bout dipthery, an' in an hour, bein' de'd;
But Sam, he sed, a-suddin' like, I'll tell you what I'll do,
I'll perform a trakeyotomy, an' mebbe pull him thro'.
I didn't know exactly what he me'nt by sech a name,
But sed as how to go ahead, an' I wu'd take the blame.
Well! he giv' him chloreform, 'til he lay like he wus de'd,
An' my heart kep' sinkin,' sinkin,' es if it were o' le'd;
But when I seed him cuttin,' an' the blood a-flowin' free,
The room and all things in it seem'd swimmin' around me.
Bimeby I got my senses; thar was Trakey all correck,
Breathing, oh! so peacefully, thro' a tube within his neck.
Darn me! I cudn't help it, o'course it wer fur j'y,
But I threw my arms 'round Gibson, an' hed a good ol' cry.
He watched my boy an' nussed him, 'till I 'swan I couldn't see

How any human bein' could stand as much as he;
For he never left the bedside 'til he tuk the tube away.
Es fur gin, he never teched it, 'tho' 'twere always in his way.
We all was hyfilutin, when Trakey left the bed,
'Cept Gibson! who was mopish, with a throbbin' in his he'd.
Pretty soon he tuk a retchin', followed by a heavy chill,
Jest the same es Trakey hed after he tuk so ill.
I ain't no shakes at docterin', but I cud plainly see
The doctor wus a sicker man than he let on to be;
So we sent again for Sloper, but this time he wus right.
Gibson hed dipthery, an' wud die afore the night.
Thet were Sloper's verdict. Gibson sed 'twere fur the best,
Es the grave to any drunkard was but a place of rest;
Thet life ter him wus weary, full o' shame an' full o' sin,
An' 'twere better to die this way than loaded up with gin.
Along a-toward the evenin', his mind got out o' gear,
An' he raved about his marriage at the endin' o' the year;
Kep' a callin' fur his sweetheart, an' risin' out o' bed,
Sed he guessed he'd go an' see her, but keeled right over, d'd,
The parsen preached about him, es a noble ship astray,
But which seed the savin' beacon in time to find his way,
An' sed he was a hero—an' so says every man
As ever heered the story o' Trakeyotomy Dan.

—Dr. John C. MacEvitt in *Brooklyn Eagle.*

GENERAL SUMMARY OF MORTALITY IN RHODE ISLAND

DURING MARCH, 1893.

DEATHS REGISTERED IN TWENTY-TWO CITIES AND TOWNS, AND REPORTED TO THE STATE REGISTRAR, DR. CHARLES H. FISHER.

Whole number reported	530	PARENTAGE:	
SEX:		Native	226
Males	275	Foreign	304
Females	255	AGES OF DESCENDENTS.	
AGES OF DECEDENTS:		20 to 30	42
Still-born	26	30 to 40	47
Under one year	103	40 to 50	48
1 to 2	23	50 to 60	50
2 to 3	15	60 to 70	51
3 to 5	17	70 to 80	44
5 to 10	23	80 to 90	15
10 to 15	9	90 and over	3
15 to 20	1	Age not stated	2

DEATHS FROM THE MOST COMMON DISEASES.

Accidents, Various	12	Fever, Typhoid	3
Apoplexy	18	Heart, Disease of	37
Bronchitis, Acute	37	Kidney, Bright's Disease of	14
Cancer, Various	12	Liver, Disease of	6
Cholera Infantum	4	Lungs, Disease of	3
Consumption	63	Measles	8
Convulsions	18	Meningitis	7
Croup	6	Old Age	10
Debility	11	Paralysis	9
Debility Infantile	8	Peritonitis	4
Diarrhœa	3	Pneumonia	94
Diphtheria	10	Scarlatina	6
Enteritis	6	Tuberculosis	5
		Still-born	26

The towns making returns represent an estimated population of 318,494.

The *monthly* death-rate is 1.58+ in every 1,000.

The *annual* death-rate upon the estimate given is 18.96 in every 1,000 of the population.

Still-born included.

The death-rate is rather larger than for the previous month, and the amount of general sickness throughout the State was reported as rather larger.

Towns not reporting deaths up to the time of making up tables for the press, April 12—Charlestown, Smithfield, Richmond, North Kingstown, Cranston, South Kingstown, Narragansett, Little Compton, Johnston, Scituate, Portsmouth, Barrington, West Greenwich, Jamestown, Glocester, Pawtucket.—*The Monthly Bulletin of the State Board of Health.*

FUN, FORTUNE AND FORMULÆ.

Small Boy—"Papa, what are roosters?"

Father—"Gentlemen hens, my son."

Small Boy—"Do they lay eggs or hatch chickens."

Father—"No."

Small Boy (meditatively)—"Only hens and ladies hatch chickens and children, consequently I won't have the anxiety of hatching children."—*Ex.*

For hypostatic congestion of the lungs, extensive bronchial catarrh and pulmonary oedema, in Typhoid Fever:

℞ Quininæ sulph., ... ℥j;
Strychninœ, ... gr. j;
Acid muriatic dilut., ... f ℥iij:
Aq. cardamomi comp. . . . f ℥ iij;
Aquæ purœ, ... q. s. f ad ℥iv.—M

Ft. sol. et filt.

Sig. A teaspoonful in water every four or six hours.—*William Pepper, M. D.*

We dare say you will feel to determine how fast your hair is coming out when you read that "idiots are seldom bald-headed."—*Ex.*

The hot weather will soon be here and you will find the gas stoves sold by the Providence Gas Co. unexcelled for comfort, convenience and economy.

The H. W. Ladd Co. are sole agents in Rhode Island, for Dr. Jaeger's sanitary underwear. Don't forget this, doctor, when your patients consult you on the subject.

A Schoolboy's Anatomical Essay—The body of a person is made up of the hed, the thorax and the abdomen. The hed contains the brains, if there is any; the thorax contains the hart and lungs, the abdomen contains the bowels, of which there are five, a, e. i, o, u, and sometimes w and y.—*Bankok Times.*

SUMMER REGIMEN FOR NURSING INFANTS.

During the variable weather of summer, when digestive disturbances are so apt to occur in nursing infants, Toussiant advises a decided decrease in the amount of milk taken, and prescribes the following to be taken after each feeding :

℞ Papainin. pur., ... gr. vi;
Acid lactic, ... gr. xxiv;
Syrup simplicis, ... f℥ iss;
Tr. vanillœ, ... q. s.:
Aquæ, ... f ℥ iiiss.—M.

Sig. A dessertspoonful after each meal.—*Annals of Gynecology.*

A Dublin newspaper has an advertisement possibly more truthful than intended: "Wanted a gentleman to undertake the sale of a patent medicine. The advertiser guarantees that it will be profitable to the undertaker."—*Medical Times.*

We wish to call the attention of the physicians' in Providence, to the well known drug house of Hall & Lyon. They make a specialty of physicians' prescriptions and inform the editors' of the *Monthly* that every drug of any importance that enters their store is carefully assayed. The physician may rest assured that nothing will be substituted, and that each drug will be up to the standard strength. They also carry a full line of Pharmaceutical Preparations, Antiseptic Dressings, Clinical Thermometers, Etc.

Doctor: If you have not already sent in your subscription for the *Monthly*, do so now. We get them by almost every mail, and very often with subscriptions come letters of congratulation.

If there is anything that makes a doctor nervous it is the continued rattle of his buggy shafts (we know whereof we speak). This source of annoyance can be effectually checked if you will send to the Rochester Shaft Support Co., for a set of their Anti-Rattlers. If when you order you mention the *Monthly*, we guarantee your shafts will never rattle again. Try them.

Their New Joke.—A physician in Illinois had a well dug. When it was about completed he went down into it to inspect the work, and the walls collapsed and buried him. But it served him right, for he ought to have been attending to the sick and let the well alone.—*Primrose Minstrels.*

The summer months will soon be here and with them Cholera Infantum, Cholera Morbus and Diarrhœa. Frye's Pancreobismuth with Pepsin, has long since gained great favor with the profession in the treatment of these diseases. If you have not used it, doctor, try it in your next case.

For paralysis in lead poisoning:

℞ Potass iodid., ... ℥ii;
Ext. ergot fld., ... ℥i;
Ext. nucis vom. fld., ... ℥i;
Tr. cardamon. co., ... ℥i;
Syrup,. . . . . q. s.;
Aquæ, ... ad. ℥iv;—M.

Sig. Tablespoonful, night and morning.

Doctor: If you enjoy a good cigar, try Geo. F. Young & Bro's. "Robert Bruce."

We have found Antikol, a safe, effective and valuable antipyretic. If you have not used it, write B. F. Riddell, Fall River, Mass., and he will send a sample bottle free, if you mention the *Monthly*.

Justice.—"Officer, what is the prisoner charged with?" Officer Lafferty—"Well, your honor, I'm not much of a judge, but it smells to me a good deal like whiskey." —*Exchange.*

For a safe investment, one that you will not have to worry over one of *The Buffum Loan & Trust Co.* gold mortgage bonds.

Send in your subscription for the *Monthly* if you wish to have your file complete. We can furnish all back numbers now, but cannot promise to do so long.

BETTER ROADS.

Petitions are being circulated, which, when signed, are to be sent to Washington, asking Congress to establish a National Road Department, to have supervision over all our highways. As in our minds this is a step in the right direction, we gladly give space for the above, and if any of our readers are interested in the matter, further information can be obtained if they will address Albert A. Pope, P. O. Box, B., Boston, Mass.

First Boy: "No, sir, you don't catch me shamming off sick to stay home from school and get dosed up with castor oil and such stuff." Second Boy: "Oh, I'm all right on that. We're homœpaths at our house."—*Life.*

A clergyman, one hot Sunday, observing a deacon asleep in church, called out: "Brother Austin, please open the widow a little. Physicians say it is unhealthy to sleep in a hot room."—*Quincy Journal.*

The Creator Knows.—"Doctor," said the patient, "I believe there's something wrong with my stomach."

"Not a bit of it," replied the doctor promptly. "God made your stomach and He knows how to make them. There's something wrong with the stuff you put in it, may be, and something wrong in the way you stuff it in and stamp it down, but your stomach is all right." And immediately the patient discharged him.—*Amer. Anal.*

LITERARY REVIEW—BOOKS RECENTLY PUBLISHED.

A Treatise on the Theory and Practice of Medicine. By American Teachers. Edited by William Pepper, M. D., L. L. D. Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania. In two Volumes; Volume I. now ready. *W. B. Saunders, Publisher, 913 Walnut street, Philadelphia, Penn.* For sale by subscription only. *Price per Volume*: Cloth, $5; Sheep, $6; Half Russia, $7.

The subjects treated in Volume I. with their Authors are, a chapter on Hygiene, by *John S. Billings, M. D.*, Professer of Hygiene University of Pennsylvania; Ephemeral Fever and Simple Continued Fever, Typhoid Fever, Typhus Fever, Relapsing Fever, Cerebro-Spinal Fever, Influenza, Dengel, Miliary Fever, Milk Sickness, Mountain Fever, Septicæmia and Pyæmia and Leprosy, by *William Pepper, M. D.*, Provost and Professor of the Theory and Practice of Medicine and of Clinical Medicine. Scarlatina, Measles, Rubeola, Small Pox, Vaccination, Varicella, Mumps, Whooping Cough, Tetanus, Actinomycosis, Anthrax, Hydrophobia, Trichinosis, Glanders, Foot and Mouth diseases, by *James T. Whittaker, M. D.*, Professor of Practice of Medicine and Clinical Medicine, Jefferson Medical College, Philadelphia; Acute Miliary Tuberculosis, Scrofula, Syphilis, Diphtheria, Erysipelas, Malarial Fevers, Cholera, Yellow Fever, by *W. Gilman Thompson, M. D.*, Professor of Physiology, New York University Medical College; General Symptomatology of Diseases of the Nervous System, Mental Diseases, Functional Nervous Diseases, Syphilis of the Nervous System, Organic Diseases of the Spinal Cord and its Membranes, by *Horatio C. Wood, M. D.*, Clinical Professor of Nervous Diseases, University of Pennsylvania; Organic Diseases of the Brain, Diseases of the Nerves, Diseases of the Muscles, Vaso-Motor and Trophic Disorders, by *William Osler, M. D.*, Professor of Practice of Medicine, Johns Hopkins University, Baltimore, Md.

The author, in presenting this work to the profession, recognizes the fact that the days when one man can edit and write a Practice of Medicine have gone by; we live in a day when specialists in the practice of medicine are as essential as in the practice of surgery. In the preparation of this work some of the leading teachers of Practical Medicine in America, have, with this idea in view, associated themselves together, with the result that we have a work in which each subject is discussed by an expert special authority, and it may then be said to represent truly the best teaching of the science and art of Medicine in this country to-day.

Very seldom, if ever, have we seen a work on the Practice of Medicine, so well adapted to the use of the general practitioner and student as this. We are not overcrowded with text-books on the Practice of Medicine, and this work should be found in the library of every progressive American physician. In the hurry and drive of the busy physician there is not time for him to dive deep into the exhaustive works of specialists, still he must know and keep posted on the advancement made in the causation, symptomatology, diagnosis, prognosis and treatment of diseases, if he wishes to keep abreast of the times and to give his patients the best and most successful treatment of his individual case, in an honest and satisfactory manner.

The differential diagnosis of all diseases are given with great minuteness and carefulness, making it very valuable to the general practitioner, as he is thus enabled to learn the very latest methods of investigation without consulting works specially devoted to the subject.

Under the head of Treatment, each subject is treated very fully, many valuable formulæ being introduced, while there is much that is entirely new; the subject of

cure by injection of blood serum from immunified animals, now attracting much attention, is thoroughly discussed under the different diseases. The first chapter of this volume is devoted to Hygiene, and has been written with especial care; it includes a full discussion of disinfection, isolation, and the principles of preventive medicine; besides this the subject of Prevention is carefully discussed under each disease.

The subjects of Insanity and Urinalysis which are so often merely touched upon in works on the practice of medicine, have in this work considerable space devoted to them, which must be of great benefit to the practitioner. Volume I contains 909 royal octavo pages, is illustrated with 58 figures and 3 plates; besides these, charts and diagrams have been freely used whenever the text has required it,

The publishers of the work have given it to the profession in good style; it is printed on good paper, although not very heavy, the type is of good size, clear, distinct, not tiresome to the eyes, and the shape and form renders it not only handsome but a serviceable book as well; in fact, the work is uniform with the other high class works published by *W. B. Saunders.*

There is one criticism which we cannot refrain from making. It is not confined to this publication alone, but the fault is found in many valuable publications, that are issued from other publishing houses as well.

When a person buys a book, that identical volume becomes his property, and the publishers have no right to insert in the back part of the volume a *catalogue of their publications.* It makes no difference how much information a book may contain, the value of the work for a book of reference depends upon the completeness of its *index*; we know of nothing more aggravating, when in a hurry we turn to the back part of a book for the index, to find ourselves tangled up in a catalogue of from five to twenty-five pages. A. B. B.

AMONG OUR EXCHANGES.

The Maryland Medical Journal. Published weekly at 209 Park Avenue, Baltimore, Md. $3.00 per annum.

Pacific Medical Journal. A monthly published at 603 Sutter street, San Francisco. Terms, $2.00 per annum, in advance.

The Canadian Practitioner. Published on the fifteenth of the month, by The J. E. Bryant Co., (Limited), Toronto, at $2.00 per annum.

The St. Louis Medical and Surgical Journal. A monthly, published at 620 Olive street, St. Louis. Terms, $2.00 per year, in advance.

The New York Medical Journal. A Weekly Review of Medicine. Published by D. Appleton & Co., New York. Subscription, $5.00 yearly. The Journal is one of the best published in the English language.

The Medical World. Published monthly by C. F. Taylor, M. D., at 1520 Chestnut street, Philadelphia, Pa. Terms, $1.00 a year. One of our most practical Medical journals.

Merk's Bulletin. A monthly of practice and science. $1.00 per year, The Merk's Bulletin Publishing Co., 73 William street, New York.

The Pittsburg Medical Review. A monthly journal of medicine and surgery. Subscription, $1.00 per year. Published at 33 Ninth street, Pittsburg, Pa.

The Albany Medical Annual. Journal of the Alumni association of the *Albany Medical College.* Terms, $1.00 a year. Published at 496 Broadway, Albany, N. Y.

THE R. I. MEDICAL SCIENCE MONTHLY.

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VOL. I. MAY, 1893. NO. 5.

THERAPEUTICS.

RECENT PROGRESS IN THERAPEUTICS.

READ BEFORE THE PROVIDENCE MEDICAL ASSOCIATION, BY C. E. V. KENNON, M. D.

GENTLEMEN:—Since the last paper on this subject was read before the Association, there have been but few new drugs of proved value brought to notice. Those which I have been able to find are chiefly drugs allied in their chemical nature to salol, sulphonal, phenacetine and that class of remedies.

In the list of *Analgesics* the most important new drug seems to be

SALOPHEN.

Dr. *W. H. Flint*, of New York city, made a special study of the action of this drug on six cases of acute articular rheumatism, in hospital, with very gratifying results. In these few cases he found salophen quite as able to control the rheumatic symptom as the ordinary salicylates, but it had no tendency to weaken the heart's action, nor to disturb the stomach, nor cause albuminuria nor smoky urine. *Dr. Flint* intends to conduct a series of more extended experiments, to ascertain more fully the value of salophen as an anti-rheumatic, and also its value in intestinal antisepsis.

Dr. Frölich, in Germany, tried salophen in thirty cases. He found it a rapidly acting remedy for *acute* articular rheumatism, and fully equal in action to either sodium salicylate or salol, and preferred it to either, as it is tasteless and non-hygroscopic and can be given in any form. Even when given in large doses and for a long time, it produced none of the unpleasant effects of salol or sodium salicylate. There was no loss of appetite, no nausea, no vomiting, no dizziness nor buzzing in the ears, and no collapse from large doses. In six cases of *chronic* articular rheumatism the action was not uniform, one case improving

and the next three remaining unaffected. As an antipyretic, salophen was entirely without action, in any dose or with any form of administration.

Dr Hare, Prof. of Therapeutics in Jefferson Medical College, has used salophen in many cases of pain like that in rheumatism, myalgia, neuralgia, neuritis, etc., and in a number of cases, in which the ordinary remedies, such as salol, and salicylate of soda, had proved useless, salophen was completely successful. One case he mentions was that of a woman of sixty-five, stout and plethoric. She had sciatic neuralgia, some myalgia, and muscular stiffness in different parts of the body. Salophen, either alone or combined with phenacetine, gave results that salol had failed to produce, and without disturbing the stomach. It was given in pill form and acted rapidly. Another case was that of a man suffering from a severe and prolonged attack of rheumatic neuritis, involving the brachial plexus. He had used nearly all the ordinary remedies and local applications without benefit. Salophen in full doses, ten to twenty grains three times a day, gave rapid and entire relief. In another case, a middle-aged man, with a tendency to uricæmia, had fleeting attacks of neuralgia in different parts of the body, and rheumatism in isolated muscles, with neuralgia of the cord and testicle. He obtained much relief from ten grains of salophen, three times a day.

A woman, aged sixty-two, had had for four or five years, severe headaches, with disease of the middle ear, dependant largely upon a gouty or rheumatic condition. The attacks of headache sometimes came on every forty-eight hours. She also had some gastric and intestinal fermentation. Mineral water, with ten grains of salophen in pill form four times a day, gave her extraordinary relief, and the patient considered herself, practically, entirely cured.

As the men mentioned above are all reliable observers, and I have found no unfavorable report at all upon salophen, it would seem from the result they obtained that salophen is a distinctly valuable addition to our list of remedies and may replace salol. At present salol is the cheaper, costing but 40 per cent. of the price of salophen.

AGATHIN

is a new drug, somewhat similar to salol, and used for the same class of cases.

Dr. Rosenbaum has reported from his own hospital practice and experiments made by other physicians, that agathin was used with good results in sciatic neuralgia, rheumatism and articular rheumatism. The action was not immediate, but several stubborn cases yielded to seven and a half grains, three times a day. No bad symptoms were met with even when the drug was used for a long time and only one

patient was reported to have suffered from headache lasting an hour or so.

Dr. Ilberg reports unfavorably of agathin. He tried it in many cases of diabetes mellitus, tabes, sciatica and others, giving, as a rule, seven and a half grains, three times a day. After twelve hours the urine became slightly brownish, with a greenish tinge. This reaction could be obtained twenty-four hours after discontinuing the drug. Of eight neuralgia patients seven were not benefitted by agathin, while one who had a slight attack of sciatica was free from pain for three days after using the remedy. *Acute* and gonorrhœal cases were not affected by it. Three cases of chronic rheumatism were improved slightly but not more than they would have been with a couple of weeks' rest in bed. The majority of patients complained of headache, a sensation of oppression in the head, and stupor. Other effects were insomnia, vomiting, diarrhoea, burning sensation during micturition and increased thirst. The conclusion from the reports on agathin, seems to be, so far, that it is inferior to the remedies that we already possess.

PHENACETINE

seems to hold its place as a safe and reliable remedy in the different forms of myalgia, neuralgia, rheumatism, headache, and so on. One case of collapse from its use is reported. A boy two years old was given two doses of phenacetine of two grains each, and a profound collapse followed. He was brought out of it by stimulants, hot water bottles, etc.

ANTIPYRETICS.

There has been no drug produced lately, of marked antipyretic power, but *Drs. Cerna* and *Carpenter* have contributed a valuable study of the physiological action of antipyrin, phenacetine, and phenocoll on the circulation. I will give a brief summary of the conclusions which they derived from the results of their experiments.

Antipyrin in small doses raises arterial pressure, but lowers it with large doses. It seems not to affect the vaso-motor system, but acts on the heart alone.

Phenacetine in moderate doses raises arterial pressure, acting on the heart and also stimulating the vaso-motor system. Large doses reduce the arterial pressure, chiefly by acting on the heart, stimulating the inhibitory centers and then depressing the heart.

Phenocoll in ordinary amounts has practically no effect on the circulation. Large doses diminish arterial pressure by acting on the heart. It reduces the pulse rate by stimulating the cardiac inhibitory centers and finally increases it by paralyzing them. It has no action on the blood itself and antipyrin has only in excessive doses. None of the

three antipyretics produced any effect on the *normal* animal heat functions.

Antipyrin produces, in fever, a fall of temperature in about an hour, the reduction being due to dissipation of heat and also to diminution of heat productions.

Phenacetine produces a slight fall of temperature, in the first and second hours, but greatest in the third hour, after ingestion. The fall in temperature is chiefly due to lessening of heat production with a slight increase of heat dissipation. The delayed action is thought to be due to the insolubility of the drug.

Phenocoll causes a decided fall of temperature in the first hour after ingestion. This is due to a very great diminution in heat production, without change in the dissipation of heat.

Experiments by *Martin*, *Wood*, *Reichart* and *Hare* on the action of antipyrin gave similar results and all reach the conclusion that antipyrin reduces temperature by both dissipation of, and diminishing the production of heat. Antipyrin is thought to act upon a *thermotoxic* center, and phenacetine and phenocoll upon a *thermogenic* center.

According to these results, it would seem that the safest of these remedies, for purely antipyretic purposes, is phenocoll, as phenacetine has the weakest antipyretic action and antipyrin, while reducing temperature promptly, is depressing to the heart and cardiac centers and dangerous even in therapeutic doses. Phenocoll, on the other hand, reduces temperature promptly, and with doses that do not affect the circulation at all. Hence phenocoll should be the safest antipyretic of the three.

HYPNOTICS.

Sulphonal is being more and more widely used as a hypnotic and is used largely in institutions for mental diseases. Occasionally a case of collapse occurs, but on the whole, sulphonal is gaining. The different action on different individuals is shown in a case reported by *Dr. Neiss*, in Germany. A boy took three and a half ounces at one dose. He slept continuously for five days and did not become fully conscious till the seventh day, being *discharged well* on the ninth day.

Trional and *Tetronal* are new hypnotics allied chemically to sulphonal. *Drs. Schultze* and *Schæfer*, of Austria, and *Ramoni*, of Italy, have reported very favorably on *trional*. They have found its action more prompt and vigorous than that of either sulphonal or chloral, with no nausea, no vomiting nor loss of appetite, though at times it was followed by slight digestive disturbances. It acted promptly and with much certainty in insomnia accompanying the different forms of neurasthenia and organic brain affections, and the sleep was lasting and sound, lasting six to eight hours. When sleeplessness was due to pain, no effect was

produced. *Tetronal* was similar to trional and slightly inferior in action, but was considered superior to sulphonal and chloral. These two drugs have been tried for about three years, but are not yet widely known, and very little is reported of them in this country.

Dr. Boettiger used trional in seventy-five cases, using fifteen to sixty grains at a dose—fifteen to thirty grains in the evening. In simple insomnia, sleep was produced in fifteen to forty-five minutes. In one case only there was giddiness the next day. It was used in some cases every evening for two or three weeks without losing its potency. The results were not good when pain was present, and when the patient had mental disease, the effect depended upon the presence or absence of pain. In thirty-two cases where pain was absent only two were not relieved by trional. As a rule, trional had no effect when the insomnia was due to pain, acute alcoholism, or great mental excitement.

Chloralose is a new hypnotic prepared from chloral and glucose. It occurs in fine crystals, soluble in hot water, sparingly so in cold. *Dr. Hanriot*, of Paris, has had a limited experience with this hypnotic. He obtained a marked hypnotic effect with five-grain doses. The spinal cord was stimulated and the reflexes retained or even exaggerated. The same drug was hypnotic to the brain, and stimulating to the functions of the cord, a rather uncommon action. From three to eleven grains produced sound sleep. In several cases where morphine and chloral were badly borne, chloralose gave excellent results and without any headache or nausea following.

Urethan, a hypnotic brought to notice in 1885, is said to be a mild hypnotic and one safe and efficient when used for children. I have had no personal experience with it, and have seen no report that bore especially upon its use with children, but if it can be given to them safely, it seems that it is useful, for most of our hypnotics are rather dangerous when given to children.

AN EXPECTORANT.

Eucolypteol is derived from eucolyptus. Eucolyptol and the powdered leaves are irritating to the digestive tract and large doses cause headache and molaise *Eucolypteol* is said to be free from these objections. It is produced by the action of hydrochloric acid on the essential oil of eucolyptus, and is a hydrochlorate of eucolyptus. It occurs in lamellar crystals and has an aromatic odor, somewhat like camphor. It is soluble in ether, chloroform, alcohol and oils, but insoluble in water. It melts at 50° C., and is decomposed at 115° C., and is administered in capsules or wafers. It is eliminated chiefly by the bronchial and salivary secretions, and partly, also, in the urine and intestines.

Dr. Lafage, of Uenilly, in a preliminary clinical investigation found that it exerted a rapid and favorable influence on the bronchial mucous

membrane in bronchitis. In consequence of being eliminated by the intestinal secretion, it had a disinfecting and antiseptic action on the bowels. *Dr. Lafage* has instituted a series of clinical studies in the hospital, to learn more of the drug, but the result has not yet been made public. The dose given by Dr. Lafage was seven grains, three times a day.

CHOLERA ASIATICA: ITS HISTORY, ETIOLOGY, PREVENTION AND TREATMENT.

AN ADDRESS DELIVERED BEFORE THE WINDHAM COUNTY MEDICAL SOCIETY, CONN., AT ITS 100th ANNIVERSARY, MAY 11th, 1893.

By J. FREDERICK HALLER, A. B., M. D.

MR. PRESIDENT AND FELLOWS:—By invitation of your esteemed president I am here to-day. I have been in somewhat of a quandery to choose a suitable subject, fitting equally to this memorable occasion and to this able body of physicians.

I cannot conceive of any subject that interests us more, just now, than the one I am about to touch upon, and while I am aware of the fact that it is one of gloomy prospects and undesirable possibilities, it is a subject to which we all have given considerable thought and study, and even during the most enjoyable occasions of our lives it is well, perhaps, to give some sober thoughts to the dangers that we are likely to encounter. I shall not be able to give you many personal observations but will give a brief summary of the experiments and results of the best and most reliable workers in this field. It is a feeling of rest and repose to get away from the constant toil concomitant with a physician's life and commune with professional brothers in this pleasant manner.

It makes one think of O. W. Holmes saying:

> And brings a sense of peace and rest,
> Like slippers after shoes.

I shall not burden you with a consideration of the simple choleras, such as occur in all countries and all climates, and with which you are all familiar. I will instead ask your kind attention to a brief consideration of the so called

CHOLERA ASIATICA.—HISTORY.

This form of cholera originated in certain parts of India, particularly in the delta of Ganges and the flat lands around Madras and Bombay. It has shown itself capable of spreading from its centre of origin indefinitely, and has appeared in epidemic forms in almost all countries,

and it is admitted that the disease may become acclimatized, (endemic) in some places.

Hippocrates, Celsus and Aratoeus have given pretty accurate descriptions of the disease as well as a score of older writers, but it was not until the year 1817 that the attention of physicians was especially directed to the disease, by the violent epidemic at Jessore, Bengal. It rapidly spread over British India and during the preceding three years it raged in British India, Ceylon and other Indian Islands. The next year it invaded China on the east, and Persia on the west.

In 1823 it appeared in Asia Minor and Asiatic Russia, and was steadily progressing westward, while fresh epidemics raged at intervals in India.

In 1830 it appeared along the shores of the Caspian sea, and over Russia invaded Europe. It raged in northern and central Europe, appeared in England in October, 1831, and was at its height in London in Jan., 1832. Many people remember with horror this destructive epidemic. It spread, subsequently, all over Europe and crossed the Atlantic into North and Central America. Up to the year 1837 it broke out in various parts of Europe and America. After this year it disappeared, having during these twenty years visited almost every portion of the world. In 1841 another violent epidemic broke out in India and China, which soon spread over a larger area than the former. It entered Europe in 1847, soon involving every country, and spread from France into America and later into the West Indies. This epidemic was more deadly than the former, especially so in England and France.

A third great outbreak occurred in 1850, entering Europe in 1853. From 1853 to 1855 it prevailed extensively all over Europe and caused great losses to the armies engaged in the Crimean war. This epidemic. although quite wide-spread, was less destructive in Europe than the former, but was quite severe in the Americas. A fourth epidemic broke out in 1865-66, but was less extensive and destructive than its predecessors.

We quote from Hartshorne's excellent article the following:

"Not proposing to touch upon this history, except for the purpose of exemplification, it may be mentioned that in 1849 the first American cities attacked were: In January, Memphis and St. Louis; in May, Chicago, Buffalo, New York, and Philadelphia; in July, Baltimore had a very remarkably limited epidemic, affecting *one-half of its almshouse building*, the side whose windows overlooked a large and foul cesspool. England and Wales, besides Cologne and other continental cities, were affected with the epidemic in 1848-49.

In 1865, Arabia and Egypt were severely visited in the spring; Constantinople, in July; then it spread over Europe. In 1866 it was in Egypt in June: thence it traversed Europe, and finally crossed the Atlantic, reaching New York, Philadelphia, and some other cities. It was our last cholera epidemic. Since that time the most notable cholera year in Europe has been 1884. Its ravages during that summer were particularly severe in Naples, 1200 deaths resulting from it in that city by the middle of September, and nearly 11,000 altogether in Italy.—*Hartshorne, Canadian Practitioner, March, 1893.*"

It has since appeared in limited epidemics in various parts of Western Asia, Russia and Turkey.

Sudden outbreaks are common in India and can be traced to the assembling of crowds at the native festivals.

You all know of the epidemic of last year, which spread over Europe from Russia, and caused such wholesale destruction of life to the people of Hamburg. I had the good fortune to leave Hamburg, Germany, about themiddle of July last summer, after a few months' trip of study and recreation in northern Europe, and it was only a few days afterwards that the disease appeared there. In an article in the *Providence Journal, August, 1892*, I mentioned the poor sanitary conditions of the overcrowded part of that city near the docks, and that was where the disease raged most furiously.

THE ETIOLOGY OF CHOLERA.

In spite of the many onslaughts made on Prof. Koch, it is yet an undisputed fact that the cause of this disease is his comma bacillus or the spirillum of cholera asiatica, but that a certain local disposition as maintained by *Pettenkofer* must exist, as we will endeavor to show later.

This organism is found in the intestinal canal of all infected persons. It is comma-shaped or curved in its morphology, and it presents peculiarities of growth and chemical reactions that render its detection by the bacteriologist both certain and simple. It is, fortunately, a bacteria easily destroyed. Acids, heat and the ordinary disinfecting fluids destroy them. *Prof. F. Hueppe* in his book on *Die Cholera epidemie, in Hamburg, 1892*, says: "Surely, a peptone is produced by the action of the cholera bacilli on the true albumen, when there is an absence of air, almost an anarobiosis, and a specific poison is thus produced." And further he says: "This poison affects the heart-muscle, and, by its action on the vaso-motor nerves, it disturbs the circulation.

"Asiatic cholera is, chiefly, a miasmatic disease, and its epidemiological appearance after certain periods, is naturally explained by the saprophytismal properties of the comma bacilli. Only by living as saprophites do they *acquire* forms, which have enough vitality to overcome

the natural resistance of the human organism in many instances, and of the different climates."

In *Zeitschrift f. klin. Med. XXII, No. 1 and 2, 1893, E. Leyden* and *Prof. M. Litter*, have shown us how the kidneys are affected in cholera, and claim that their refusal to work is due to a *Coagulations nekrose* in *den Epithelien der Harnkanälehen*, which are natural results of the great circulatory disturbances.

Prof. A. Almén in his report as one of the three commissioners appointed by the Swedish, Danish and Norwegian Governments to report on cholera in *Ugeskrift for Loeger, No. 15, Copenhagen*, says: "In my opinion, the standpoint of medical science is, that the infectious nature of cholera cannot be denied, but that the *local disposition* is also a very important etiological factor, although we do not precisely know which one of these factors is the determining one."

Allow me to quote once more from *Prof. F. Hueppe* in *Berl. klin. Wochenschrift, No. 4-6, 1893*, whose opinion we must respect, as he had charge of one of the busiest hospitals during the recent cholera epidemic at Hamburg. He says that, "except, *Klein* of London and *Cunningham* of Calcutta, everybody seems to agree *that there can be no cholera without comma bacilli.*" He mentions three links in the etiological chain of cholera, namely:

The infectious material, *Pettenkofers x*, the individual disposition, *Pettenkofers z*, and the last link, *Pettenkofers y*, the time and place favorable to its development, *die Ortlich-Zeitliche Disposition.* It seems that the pathologists with *Virchow* in the lead have overestimated z, the school of *Pettenkofer* has considered y too important and the bacteriologists with *Pasteur* and *Koch* at the head have been rather partial to x. A thorough and impartial scientific investigation into the matter, as is done by *Hueppe* and *Naegeli* promises to clear up this conglomeration of opinions and theories. The practical investigations, begun in England, and later with *Parkes* and *Pettenkofer* as leaders, which have been directed towards y have done much for the prophylaxis; those who have considered z as the most important have only one important accomplishment to point to, namely, vaccination against smallpox, and vaccination is now being tried with more or less success for cholera; the third faction, the bacteriologists, who represent x, have not, as yet, shown any practical results, but appear more energetic than any of the former. For the *individual disposition* there was not much to be done. The teachings of *Koch* had scared half of the people to death, and the old teaching that *cholera is, as a rule, not a contagious disease*, seems to hold fairly good. Concerning the spreading of the disease, *Pettenkofer's Ortlich-Zietliche Disposition* has not, as far as the water supply is concerned, materialized. Then it remains to consider x, *the*

infectious material which *Pettenkofer* looks upon as unimportant, while *Koch* argues that it is the most important point to attack. As bacteriology will always come in too late, and the infection having taken place before the cause of the infection is found out, we cannot successfully *conquer* the disease by attending only to x.

The etiology of cholera seems to occupy the following position, if we try and sift out the opinions and researches of the best workers in the field.

Gruber and *Wiener*, *Archiv f. Hygiene u. B. 15*, have shown us, that the comma bacilli must be transplanted often, daily, and have plenty of rich nutriment, to continue very virulent.

Hoffkin made the bacilli more virulent by intra peritoneal inoculations from animal to animal, and observed that the poison would be stronger if exposed to the air, between each inoculation.

In St. Petersburg and Baku, Russia, experiments made by *Neucki*, and published in *Vratch*, Jan. 7, and reported in the *British Med. Journal* were directed to the other bacteria of the intestines. In the excreta from patients sick with typical typhoid cholera he found, besides the comma bacilli also two other bacilli which resembled closely the bacilli coli communis and the typhoid bacillus, and when these were inoculated on an animal, together with harmless comma bacilli they caused sudden death, although these bacilli alone without the comma bacilli, were without any effect on the animals. B. coli communis had the same effect, even when they were grown from the water supply of St. Petersburg. These bacteria may, consequently, play a very important role; they may increase the virulence of the comma bacilli, and increase the individual disposition during an epidemic.

In Paris, interesting experiments were made in *Hayems* department in the Hospital St. Antoine. 251 cholera patients were here received and bacteriological examinations were made in 201 cases by *Lesage* and *Macaigne* and published in *Annales de L'Institute* Pasteur Jan. 25, '93.

In 156 cases comma bacilli were found, besides the bacillus coli communis and a number of others. The comma bacilli were present in greatly differing numbers, but their number did not seem to have any influence on the severity of the disease. In simple diarrhœas large numbers were found, and in rapidly fatal cases it was often difficult to produce them. Perhaps they were here more virulent. *Hueppe* in Hamburg has also spoken of this fact, that the number of comma bacilli had nothing to do with the intensity of the disease. The comma bacilli seem to, in these cases, come very close to our daily harmless companion, the bacilli coli communis, and yet the *b.* coli communis, under certain conditions, produces diarrhœa, cholerine and quite severe cholera. In 45 of the patients, whose dejections were examined bacte-

riologically at St. Antoine hospital, no comma bacilli could be found, but *b.* coli *c*, either alone or associated with strepto cocci, *b.* pyocyaneus or others. Clinically, these cases did not differ from those where the comma bacilli were present. Some of these patients died and others had but light attacks of diarrhœa. May not these cases be referred to those who are frightened into a diarrhœa by their mortal fear of the disease? Then we have the experiments by *Petenkofer* and *Emmerich*, published in the *Munchener med. Wochenschrift*, Nov. 15, '92, where they partook of some boullion, rich in cholera bacilli, without any apparent discomfort. This was published in the R. I. Medical Science Monthly for Jan., 1893. And again we have a report from *Dr. P. Hasterlik*, before the *Wiener K. K. Gesellschaft der Aertzte* and published in *Wiener klin. Wochenschr*, 1893, 9, where he, himself, together with three other persons, partook of fresh boullion cultures of comma bacilli. Some of these persons had acute and chronic diarrhœa previously. All got well, and experienced no inconvenience except some increased diarrhœa. 24 hours after taking the bacilli they were found in two cases in the dejections. The purity of the cultures cannot be questioned, as they were obtained at Profs. Paltaup's and Perliks' laboratories.

These experiments rather tend to prove that (the specific poison), Pettenkofer's x is not so dangerous if y and z (a favorable time and place and a local disposition) are not present. Progress in the etiology of cholera has rather been along the lines of the epidemiological side of the question, and yet, when we wish to study the real pathogenic questions of this disease, new and very difficult problems arise before us. But this would rather prove the remarkable progress we have made, for every answer we can give to similar problems, every explanation of nature's phenomenon we can produce, shows that science is at work and is advancing, and its patient, thorough workers will explain all these incongruous questions in due time.

The diagnosis of the disease is often impossible unless we are able to prove the presence of the comma bacilli microscopically. This should be done at once and with exactness. The simplest way to do it, avoiding tiresome details, is (according to *Hueppe*):—the gray flocculi of epithelium in the dejections are put in boullion, which is left standing from 8 to 10 hours in a temperature of 37° C about bloodheat. The bacilli form, as a rule, distinct colonies on the surface, and can *with certainty*, be detected under the microscope. In questionable cases cultures can be made on agar plates; these cultures will show increase after 12 hours usually; or else cultures can be made in nutrient gelatine, which are ready in 24 to 30 hours.

In simple cases of cholerine more bacilli were often found in the

dejections than in the more severe ones, and light diarrhœas, or cholerine, may therefore be more dangerous. Studies of these bacilli have shown that the simplest chemical agents destroy them very quickly. So does heat. If comma bacilli gain access to water, their growth is greatly influenced by the reaction of the fluid, its temperature and the number of other micro-organisms present. In milk they thrive exceedingly well; likewise in food that has been cooked or sterilized fluids, if exposed after having been subjected to this process, for cooking or sterilization kills all other organisms and the comma bacilli have then nothing to retard or oppose their growth.

Sternberg in the *Canadian Practitioner for March* and in the *Brooklyn Med. Journal* fixes the thermal death point of the comma bacilli at 60° C, or 140° F, and ten minutes exposure to this temperature may be relied upon; and if milkand water have been heated up to that point, one may be safe. He advises boiling the fluids for half an hour.

PREVENTION.

Resting our endeavors of preventing cholera upon the present status of its etiology, we may confine ourselves to a few brief considerations. *First*, the efforts by the French authorities to suppress the name cholera, and call it cholerine, are very commendable, and it would prove a great blessing if the name cholera was discarded altogether and another name adopted, as the presence of a case of cholera scares half of the people into diarrhoea. *Second*, as *Hueppe* and others maintain, that the comma bacilli are not strictly the cause of cholerine, but produce it, together with other bacilli, favorable time, place and individual disposition having much to do with it, it would seem that our efforts should be directed rather to the latter conditions, than to the specific poison, the bacilli. *Third*, the bacilli are easily exterminated outside the body, in fact they are more easy to kill than many other bacteria, as can be seen in *George M. Sternburg's* excellent article in the *Canadian Practitioner for March* and the *Brooklyn Medical Journal.* They do not thrive and prosper unless all conditions are favorable to their growth. Favorable condition are:

Of the water; heat, great abundance of vegetable and animal material, such as discharges from sewers, and discharges from cesspools through a soft porous subsoil, some salt in the water;

Of our food; milk, decaying vegetables, butter, cheese and sterilized and cooked food which has been exposed after the process of sterilization;

Of our surroundings, filth, dirt and dust, collection of rubbish anywhere in the home or on the premises, faulty plumbing, damp and wet cloth, particularly damp linen or damp clothes; overcrowding, lack of proper ventilation, moist, damp cellars, well-water from wells situated

within 30 feet of dwellings with privies, stables and cesspools within this distance; unclean backyards, dirty side-walks, gutters and streets, and finally a damp, moist, rather warm weather.

G. Klemperer has tried to vaccinate animals and people against cholerine. He experimented first with guinea pigs and afterwards with a medical student, and finally inoculated himself with comma bacilli cultures in reduced form. His experiments were reported in the *Berliner klin. Wochenschr., Dec. 12, '92.* While the results were apparently successful, it is too early to pass any opinion about this mode of prevention. The general opinion prevails, that the miserable water supply of Hamburg was the cause of the epidemic there, and *Prof. Koch* succeeded in producing cultures of comma bacilli from the water. The epidemic at *Nietleben* near *Halle*, Germany, was also caused by contaminated drinking water, as Koch could prove the presence of the bacilli in the river Saale.

In *Lublin*, *Russian Poland*, where an epidemic occurred, the citizens received their drinking water from old dug wells, and an examination of the water proved the presence of great quantities of comma bacilli. *Biermawski: Deutche med. Wochenschrift, 42-92.*

Cholerine was most prevalent in the poorer quarters of St. Petersburg, where the water suppy was inferior, and much improvement could be noticed from using Pasteur's filters.

The usual cleanliness, observed by all intelligent and sensible people, will always protect them, to a great extent, from cholerine, and prevent the transmission of the bacilli in the dejections to the hands, clothes and food stuffs, and the epidemics of 1892 show the same as former epidemics have shown, that it is always among the poor, living in densely filled tenement houses that the house epidemics occur, where thorough cleanliness and sanitation is out of question.

As one of the results of the epidemic in Hamburg, a careful inspection of ships and their crews, who usually carry the disease, was insti. tuted; not a crazy quarantine, but a reasonable inspection.

Dr. Wise of Ohio, in a paper read before the Ohio Health Conference at Columbus, Jan. 26-27, 1893, recommends a rather thorough-going and unique mode of preventing cholerine:

"I would suggest that those swarthy fellows over there, be ordered to stop their festivals and pilgrimages, and quit drinking the water they bathe in, and if they did not obey the edict, let it be understood that we will raise a disturbance in their congregation in the midst of their most solemn incantations. The munitions of war in the hands of a good military, would let more daylight into the minds of the benighted heathen; and powder and ball would do more toward alluring them into the folds of righteousness in a brief space of time than all the sad-

eyed missionaries in christendom can accomplish in a hundred centuries."

The epidemic at Hamburg, last year, presents a painful picture, and yet, the world at large has been benefitted by its experience. As soon as it became known that cholerine existed, a crazy watch was kept on the city and its people. Every person coming from Hamburg was treated worse than a horse thief or a leper, held in quarantine in several places and disinfected over and over again in the most insane manner. England was the only country that did not declare quarantine, but vigorously maintained its system of inspection *and yet no cholerine appeared* in England. To hold all travellers and their baggage, coming from infected places, in quarantine and to smoke them with sulphur, etc., is unreasonable, and unnecessary. In Wittenberg, Germany, last summer, men could be seen at the station, with pails full of chloride of lime and carbolic acid solution, and with large brushes in their hands who were to disinfect not only the passengers from Hamburg, but also every car and its passengers and contents. In Austria even dogs and cats from infected places were disinfected. Just as crazy is the idea of disinfecting all new merchandise in clean, tight packages, which are usually spoiled in this manner; the same may be said of food stuffs, for it is well known that comma bacilli do not develop in fresh fruit and vegetables, unless they are decayed.

Quarantine has proven very ineffective and the drift of general opinion is now towards medical inspection with power of detention. The bill recently passed by Congress, conferring additional powers on the Marine Hospital Service is chiefly based on this idea.

It is to be regretted that the bill was not made stronger, conferring upon the national authorities more power. As it now stands, states and towns can manage things much as they please and no one has any right to interfere, save the state authorities, and, if our experience at New York last year is a fair sample of that kind of rule, much improvement is needed; but then, few cities are as badly governed as New York. In regard to *Hygiene* and disinfection in a *cholerine epidemic*, I will refer you to the article on this subject in the January number of the R. I. Medical Science Monthly.

Medical Director of the Navy, *A. L. Gihon*, in the *Canadian Practitioner for March*, suggests that we should have a National Board of Health with plenty of money and ample powers. And further, he says:

"Fumigation is as unfortunate a word as quarantine. I abominate the word quarantine, because it carries with it the idea of forty days' detention, and that I do not approve of; it would be better to call it sanitary non-intercourse. Fumigation is worse than quarantine, because if you fumigate you burn something, and you think you are perfectly safe. A friend told me he was in a house during a fumigation, and as he did not feel inclined to move he stayed there, and sat in the room and read a paper during all the time of the fumigation. There is a report in

the papers of a ship which was fumigated, and after it was all over they found an old hen still sitting on her nest; and still another case where a cat was discovered having gone through the fumigation without being disturbed. Now processes of that sort are worse than none at all, in that they give a feeling of protection when it does not exist.

I would make every medical man in this city a sanitary inspector under the direction of the health commissioner, give him his block or two, authorize him to go into these houses, rich men's houses as well as poor men's houses, and go from the attic to the cellar and see if they have done that which the circular has told them to do. I think that would be fulfilling the highest duty of the medical profession. Then you would give your health officer a hundred arms, and he would not be limited to the very small force which he has and with which he does so much. Further, I would have every police officer compelled, while on his patrol, to examine the outdoor condition of things—the gutters, the corner grocery stores, looking down into their cellars to see that there is no decaying vegetables. If you do that I think in one week you can put this city in a thoroughly sanitary condition, and you can defy the cholera and control the disease that has a germ so delicate that you can hardly help killing it."

This suggestion can be applied to states, municipalities and towns equally well.

It may be wholesome to read the *measures taken at Hamburg, Germany, to prevent the return of an epidemic of Cholerine*, as reported by Asst. Surgeon Roseneau, of the U. S. Marine Hospital Service, stationed at that port:

Great activity characterizes the various city departments, particularly those concerned with the public health. A total of $1,000,000 has been expended by the city since the outbreak of the epidemic last summer for cholera purposes.

Physicians are required to report at once every case of cholera, or suspicious cases, to the medical bureau. The heads of households or the masters of ships are obligated to report to the police authorities all cases of cholera or suspicious cases of cholera coming under their notice.

THE EXAMINATION OF CASES.

A bacteriological examination is made of the alvine discharges of every case reported. This work is done at the Hygienic Institute or at the laboratories of the medical bureau or the city hospitals.

As soon as the diagnosis of Asiatic cholera is established, the fact is reported telegraphically to the department of health at Berlin, and published in one of the local newspapers.

Through the courtesy of the cholera commission of the senate, daily reports are sent to the United States consulate for information in making out the bills of health.

The medical bureau sends a physician to examine into the conditions and circumstances surrounding each case reported. The physician recommends in each particular case the measures to be taken in order to destroy the contagion and prevent the spread of the disease.

CHOLERA HOSPITALS.

There are five cholera camps situated in various quarters of the city, all well appointed and ready for service. The camps are all built on the same general plan. They are for the most part on ground connected with one of the large hospitals. They consist of one-story wooden barracks, designed after the models of modern pavilion hospital wards. Each barrack will accommodate from 25 to 35 patients.

There are in all 26 newly-built barracks, with a capacity of 822 beds ready for occupancy.

Other pavilions, as well as the so-called smallpox wards at the old City Hospital, may be called upon for cholera purposes, if found necessary. This makes an addition of 450 beds.

Besides these, the field lazaretto, furnished by the minister of war during the last epidemic, will in case of need probably again be placed at the disposal of the Hamburg authorities.

The cholera hospitals are situated as follows:

Newly built and ready for occupancy. (1) At the Neuen Allgemeinen Krankenhaus, 7 barracks, 250 beds. (2) At the Alten Allgemeinen Krankenhaus, 8 barracks, 256 beds. (3) At the Seaman's Hospital, 4 barracks, 96 beds. (4) At the Marien Krankenhaus, 4 barracks, 110 beds. (5) At the Vereins Hospital, 3 barracks, 110 beds. Total of 26 barracks, 822 beds.

The following can be turned over at any time for the use of cholera patients: (1) At the Neuen Allgemeinen Krankenhaus, 6 barracks, 120 beds; other pavilions, 150 beds. (2) At the Alten Allgemeinen Krankenhaus, smallpox wards, 120 beds; 2 barracks, 60 beds. Total of 450 beds. Being a grand total of 1,272 beds.

TRANSPORTATION OF THE SICK AND DEAD.

Cabs (droschken) and other public conveyances must not be used for the transportation of the sick.

Each case of sickness will be transported separately in ambulances provided for this purpose. The management of this department will not only be conducted from a central station, but from agencies in the suburbs and more distant parts of the city, so that there may be as little delay as possible in the transportation of the sick and the removal of the dead.

There are 28 ambulances and 10 covered conveyances for the dead, ready for service. There are 60 wagons and 240 teams held in reserve, to be used as ambulances, and 20 vehicles with 60 horses to be used for removing the dead, should the above numbers prove insufficient.

In order to provide for identification, transporteurs are directed to carefully take the name and necessary data of each case.

The mortuaries, morgues and deadhouses, in connection with the hospitals and cholera camps, will together accommodate 1,000 bodies. If found necessary, more room is at the disposal of the authorities. The burials will be undertaken by private companies.

The dead bodies are wrapped in a cloth saturated with 5 per cent. carbolic acid solution and buried underground in the usual way.

A bacteriological examination of the ground about the bodies and of the water drained from the burial places has failed to discover the presence of comma bacilli,

One crematory, with a limited capacity, has been erected since the outbreak of the epidemic.

THE DISINFECTION.

Every dwelling in which a case of cholera occurs will be disinfected. The disinfection is done by a detachment sent out from police headquarters.

It is provided for that in case of a business or stall being concerned, the business must be suspended until the completion of the disinfection. Special attention will be paid to such cases when the trade is in edibles or wares liable to carry infection. Whenever it is considered necessary, such articles will be destroyed.

Bedding, clothing, and furniture which have come in contact with the case will be

turned over to one of the city's disinfecting establishments. Articles not capable of disinfection are burned.

There are at present two large steam disinfecting plants operated by the city. These plants are provided with large cylinders with steam connections providing for hot air or live steam. The articles to be disinfected are either hung up or spread out on trays, according to the character of the goods. The time of exposure varies according to the article.

Clothing is first exposed to dry hot air at 90° C. for twenty minutes; then to live steam at a temperature of 102° to 104° C. and pressure of 0.1 atmosphere for thirty-five minutes, and again to hot air, in order to dry.

The disinfecting plants are so constructed with a dividing wall that the side where the soiled articles are received is not in direct communication with the "clean side," where the steamed articles are distributed.

Leather articles and goods not capable of disinfection by steam are first cleaned mechanically with soap and warm water, and then immersed into a 5 per cent. carbolic acid solution, and allowed to dry slowly.

The workmen are trained hands under the supervision of the police authorities. They are required to wear disinfected linen gowns and to take the precautions for personal cleanliness usually seen in a surgical operating room.

In addition to these two city disinfecting establishments, there are steam disinfecting plants at the various hospitals and cholera camps.

Should it be found necessary, the city is prepared to erect six more similar establishments at short notice.

The disinfection of the dwellings is done by detachments, usually of three men, under the command of a constable.

These men, employed by the police authorities, are experienced hands, for they have enjoyed the training of having disinfected 200 dwellings during the epidemic last summer and fall.

The personnel all wear linen dusters similar to the ones mentioned above, and are required to disinfect themselves at the completion of their work.

There are four rooms for fumigation by sulphur, which are exclusively used by shippers for disinfecting merchandise. This work is attended to by a sworn chemist, appointed by the chamber of commerce and approved by the senate of the state of Hamburg.

The disinfection of sewerage is but partially accomplished. There are double cisterns at the cholera hospital at Eppendorf for the reception of the sewerage, while the disinfection is accomplished with chloride of lime.

The other cholera hospitals were built with single cisterns, which were found to be inoperative.

CHOLERA PARTICULARLY ON SHIPS.

Should a case of cholera occur on a ship, the patient will be at once transferred to one of the hospitals, and the ship, as well as all things which the patient has come in contact with, will be disinfected, as provided for above.

The further precautions taken will depend upon the circumstances of the case and the recommendations of the examining physician. The crew will either be transferred to the detention house "Concordia," where they will be held under observation six days, or, if allowed to remain on the ship, will be examined daily by a physician appointed for this purpose.

IMMIGRATION.

The forwarding of steerage passengers from the interior is closely watched by the police authorities. All immigrants from Russia, Austria, or other infected districts

are required to remain under observation six days in the detention camp before being allowed to proceed. In some cases this time is extended, so that I have known several immigrants who spent two months in the barracks.

The bag and baggage of the immigrants is disinfected upon arrival.

Each immigrant is seen at least once a day by physicians appointed for this purpose.

PUBLIC BATHS.

All the public baths in the river Elbe and on the Alster have been closed. There are two swimming tanks which are supplied with water sterilized by boiling. Latterly, a douche and shower bathing establishment has been opened, the water for which is all boiled.

THE WATER SUPPLY.

The improvement in the water supply has been made the subject of a special report. In order to prevent the direct contamination of the water from the river, vessels are not allowed to come to anchor or find wharfage 1 kilometer above or below the inlet pipe to the city water works.

[TO BE CONTINUED.]

SURGERY.

THE USE AND ABUSE OF THE DRAINAGE TUBE IN NON-PENETRATING WOUNDS.

Read before the Baltimore Medical Association, Feb. 27th, 1893, by ROBERT W. JOHNSON, M. D.

Professor of Principles and Practice of Surgery, Baltimore Medical College.

WHEN Chassaignac applied the drainage tube to wounds, he made one of those great strides that mark eras in surgery. Not that drainage was unknown prior to his practice, but, like so many famous experimenters, he kept on doing in a rational manner and persistently what others may have done spasmodically and sporadically.

Esmarch's bandage must have been applied by surgeons after Hunter's discovery before the German surgeon made it his own by persisting and insisting on its use, which very proclamation of its virtue gave him letters patent to fame like those which inventors receive.

Now, I do not mean to take up the great subject of drainage in its entirety; and by way of curtailing my remarks will confine myself to a short discussion of the use and abuse of the drainage tube in wounds outside the three great cavities of the body, or, as they are technically called, non-penetrating wounds.

I have said that Chassaignac bestowed a great boon on surgeons of succeeding generations; but *tempora mutantur et nos mutamur in illis.* The conditions of the present are not the same as involved all wounds except subcutaneous ones, and a few accidentally clean wounds in Chassaignac's time. They were all with the above exception dirty wounds, and had no progress been made in the last half century, we should have been as dependent on the drainage tube as the contemporaries of the great French surgeon.

For our purpose we must divide wounds into three great classes: (1) infected, (2) suspected, (3) ideal.

1. In the infected we have certain positive indications of pus or other toxic presence and must proceed to eliminate it.

2. In suspected we have reason to doubt the cleanliness of the wound, either from our own faulty technique or accident, over which we have no control, and we must be prepared to drain, should the suspected develop into the infected wound. Very often the suspicion is groundless and our wound may be pure as Cæsar's wife; in which case we are called to use judgment as to the propriety of having means of drainage where the wound is thus practically ideal.

3. By ideal, I mean a wound, generally of the surgeon's own making, where every safe-guard for cleanliness has been taken and we can feel, as we look into its recesses, that there is hardly a possibility of contamination.

So much for the casual glance at the kinds of wounds. Now, a word about the means of drainage. First we have the rubber drainage tube and its congeners, the decalcified drain, strands of horsehair, catgut, silk, or whatever is intended to act as a drain through whose lumen or interstices and between whose cords the effused contents of wounds may dribble away.

Second, we have the more subtle action of gauze, whose wick-like structure, together with the capillary attraction of its fibres, not only affords an avenue for escape, but lures secretions from their birth-place.

Finally, there is drainage to be secured by the relaxed suture at the most dependent part of wounds, a sort of safety-valve in case tension becomes irritating, when the pressure may be relieved by oozing of the wound secretions out of the opening left for that purpose, without the mechanical interference of tube or gauze. The salient feature about this last method, and one that commends itself to surgeons who do not want more foreign bodies in their wound than they can avoid, is the fact that the wound by this method contains no abnormal substance except the ligatures and sutures, which, if properly prepared, do not give trouble, and we have no reason for undressing wounds so treated unless

thermometer indicates infection, or the dressing, dampened by the discharge, becomes foul.

The fact that the dressing is permeated with blood—*provided it dries* before it decomposes, as it will if the dressing be antiseptic as well as surgically clean—is no drawback or indication for change. I have over and over again let amputated stumps, when there was no drainage tube or gauze in them, remain in the dressing originally put on for ten days or two weeks or until such time as I wanted to examine the sutures. This is the dressing I generally use in ideal, and often in moderately suspected wounds.

The incision is sewed up, except one relaxed suture at the most dependent part, taking particular care to approximate the edges of the wound accurately. Iodoform, rubber protective with holes in it, iodoform gauze, mild bichloride gauze or cotton, a lino bandage wrung out of mild bichloride, which will harden as it dries and make graduated compression to obliterate dead spaces, and finally a splint to keep the parts at entire rest. In such a dressing as this the oozing wound secretion, if not too much, will soak, dry, and harden and form an impermeable cap to the stump and when removed show you satisfactory union along the whole incision. I have no anxiety, unless my thermometer shows infection, at the appearance of a blood spot on the outside of my dressing. I do not feel that the dressing is therefore necessarily unclean and requires change, unless the temperature indicates that bacteria may have been left or worked their way backward from the surface of the dressing to the wound surface before the blood has dried in the dressing.

Now, a word about the rise of temperature in the first three or four days after an ideal operation. I think the general practitioner over-estimates its importance. Observation has shown that after simple fractures there is a rise of temperature dependent partly on what is known as fibrin ferment in the clot at the point of fracture, and though this may be actually more marked than the rise of temperature after a well-drained compound fracture in the first day or two, the fibrin ferment fever is not to be held as a cause of anxiety, for it quickly subsides and is no excuse for a panicy belief that the wound is infected, due to bad drainage, and that therefore the second operation of redressing must be immediately carried on to rescue the wound from septic infection. Temperature that flares up in the first thirty-six hours, or even later, say three days after an approximately clean wound, much less an ideal one, is not as a rule due to infection by pus organisms, as they have not had a chance to get in their work; but is due to chemical irritants, the products of bruised tissue and extravasated blood, produces but little malaise and is no cause for alarm unless it fails to subside.

In my ideal wounds, therefore, I do not as a rule use any drain beyond the possible relaxation of a suture in the most dependent part, nor do I hasten to suspect and treat on suspicion my ideal wounds that present a moderate rise of temperature in the first forty-eight hours or three days which I believe due to fibrin ferment and not pus. Again, I do not hasten to remove antiseptic dressings that have been slightly tinged with ideal wound secretions, if I think the antisepsis will check the progress of bacteria inward, or drying, become impermeable to them. Instead of draining pockets I prefer to prevent them by equable compression and subdue irritation by rest in splint. So much in a cursory way for the drainage tube in ideal wounds. I do not use it if I can help it. I do not want the foreign body to irritate—to make me change my dressing again and again, and by setting up as a foreign body a *locus minoris resistentiæ*, a desirable habitat for germs that may be introduced through this means.

Now let us consider the drainage of suspected wounds. In these we have the element of doubt as to their cleanliness; we may not have had the making of these and we may feel that we cannot be sure they are clean. They may or they may not be infected. As they reach toward the border line of purity or infection we may treat them as ideal or infected. I confess a weakness toward considering suspected wounds not quite as bad as they are painted—a sort of reaction against giving a dog a bad name—and trusting to blood clot to maintain my tentative position; but there are between these extremes some whose character we cannot decide on. How shall we drain these wounds suspected to be beyond the salvation of the blood clot?

Instead of the irritating tube, I should suggest the gauze acting as a wick and removing the questionable fluid contents from the interior. I think this drain is less irritating, it is more apt to be clean, it presents pliant edges to the wound surface and is adapted to shape. If there is value in the sieve-like action of cotton put over test tubes to prevent infection from without, may we not have an analogous but not so certain antiseptic sieve (since it is wet) to the wound from outside? It is easy to retain in the wound and is part of our necessary armamentarium. It should be removed as soon as we find our wound is not infected, say in four days, and not replaced necessarily. It should be replaced by the drainage tube if we find suppuration bound to take place, and this leads us to the last division of our subject, the drainage in infected wounds.

It was with these surroundings and these conditions that the drainage tube was conceived and brought forth in pre-aseptic days, and to-day, like many another brilliant offspring of genius, it finds its best place in the surroundings and circumstances for which the parent genius con-

ceived it. Here is the field for the drainage tube, the pus wound; here your blood clot may be unsatisfactory; here your relaxed suture fails; here your gauze may not do all that is anticipated; but here the drainage tube fills the full measure of your expectations and continues to cast a golden halo born of streptococcus pyogenes aureus over the revered memory of Chassaignac.

In conclusion of this paper, as of any I write, I do not wish to dictate or say "thus far and no farther." Surgery is too progressive for one generation to imagine it made up of a decalogue of "thou shalts" and "thou shalt nots," nor can any man join an antiphonal choir in science and sing only one side. We may progress sometimes by going backward and I would advocate no absolute rules about matters still *sub judice*. I give you the above result of a short experience, hoping it may prove interesting to you, as it has proven satisfactory to myself.

BACTERIOLOGY.

PTOMAINE POISONING.

READ BEFORE THE SOUTHWESTERN MINNESOTA MEDICAL SOCIETY, JANUARY 12, 1893, By J. C. GILBERTSON, M. D.,

LUVERNE, MINN.

MANY of the common ailments or diseases that the human race is heir to are now universally conceded to be caused by living organisms. Bacteria or microbes have been wandering about upon the face of this earth for nearly 6,000 years, seeking whom they may devour. So deadly and so appalling has at times been their work that humanity has time and again cried to heaven for deliverance. Yet so successfully have these germs labored in disguise that it is only in the latter part of this nineteenth century that they have at all been discovered. The scientist and microscopist, the chemist and bacteriologist of the last ten or twenty years have somewhat succeeded in piercing the curtain and viewing a few of the hitherto unknown actors.

Bacteria are the lowest forms of vegetable life. They are minute, unicellular in structure, and multiply by division and the formation of spores. They split up complex substances into simple elements through the process of putrefaction. Most bacteria are harmless, but some after gaining admission to the body are capable of producing disease and are known as *pathogenic*.

Recognizing the fact that germs do bear a causal relation to some

diseases, the question arises, how do these organisms produce disease? Several theories have been advanced:

1. The germs deprive the blood of oxygen.

2. The bacilli accumulate and form mechanical obstructions in the vital organs.

3. The bacilli consume the protoids of the body.

All of these theories have been shown to be defective and none are at the present satisfactory. Hence a fourth and generally accepted theory:

4. Bacteria during their growth elaborate a chemical poison, which is soluble, and which when introduced into the circulation produces fever and the characteristic symptoms. This chemical poison is known as a *ptomaine*. We will then define a ptomaine as a product of bacterial decomposition. Vaughan gives an explanatory definition and defines a ptomaine as "a chemical compound which is basic in character and which is formed by the action of bacteria on organic matter."

A large number of the ptomaines are inert, others highly poisonous. We will consider the latter only.

This bacterial decomposition may take place in or outside the body. We will therefore consider ptomaine poisoning in relation to the body from external and internal causes.

I. External causes. Whenever bacteria have under favorable conditions attacked matter outside of the body, and by decomposition have elaborated their characteristic poison, and this again has gained admission to the body, generally through the alimentary tract in food or drink. Under this head is poisoning from ham, sausage, oysters, mussles, milk, cream, ice cream, cheese, etc. We will not discuss each in detail. The ptomaine gaining admission is already in a soluble state, is quickly absorbed, and symptoms usually develop early. There is much similarity in symptoms and they may be grouped under the following divisions:

1. A true gastro-intestinal irritation, in which we have vomiting, purging, cold, clamy skin, anxious countenance and much depression.

2. Purely nervous, sensation of heat, itching, nettle-rash eruptions, swelling, asthmatic breathing, etc.

3. A kind of intoxication, in which we find dizziness, muscular weakness muscnlar spasm, paralysis, coma and death.

Treatment: Preventive and symptomatic.

II. Internal causes.

Most of the infectious diseases, suppuration, puerperal fever, etc. are conceded and many proven to be due to pathogenic bacteria. We will consider a few:

Diphtheria. Says Vaughan: "That the Loffler bacillus is a cause

of diphtheria no one can now deny. The fact that this germ, although found only at the seat of inoculation causes marked systematic disturbances, indicates that its action must be due to its soluble products." The bacillus gaining admission to the body and finding lodgment in its favorite location about the tonsils, in the pharnyx, larynx or nares, acts as a local irritant producing an exudative inflammation. In so doing it first induces death of the cells with which it comes into contact, particularly the superficial epithelium and the leucocytes. The further action of this necrosed tissue and of the bacilli results in the elaboration of a ptomaine which is soluble, becomes absorbed into the circulation and produces the marked systemic infection. From this point of view we consider diphtheria as primarily a local disease, and the constitutional disturbances as due to poisoning by the ptomaine of the diphtheric bacillus.

Typhoid Fever. Most of the bacteriologists and the profession at large believe that the bacillus of Eberth is the specific cause of typhoid fever. To this belief Vaughan and a few others take exception. At present, however, I am willing to recognize Eberth's bacillus as *a* cause of typhoid fever. This bacillus, if it succeeds in passing the stomach without being destroyed by the gastric juice, seems to have a special affinity for Peyer's patches of the small intestines. Here it acts as a local irritant, causing hyperæmia, death of cells and necrosis, and in so doing elaborates its characteristic poison, by some termed the "typhotoxine," which is largely responsible for the marked constitutional symtoms.

Tetanus. The bacillus of tetanus is primarily a native of the soil, but is frequently found on rusty nails, fork-tines, splinters, etc. The bacilli, I believe, have never been found in the blood or tissues beyond the point of introduction. Their action is entirely local. Here they multiply and elaborate their ptomaines, which have a special action on the spinal cord and spinal centres.

To bring to a close I am inclined to the following deductions:

1. Pathogenic bacteria cause disease by the elaboration of ptomaines.

2. The primary action of pathogenic bacteria is local and the constitutional disturbance is brought about by the absorption and action of ptomaines.

How, then, are we to meet and counteract these conditions? Bacteria, being living organisms, are made inert or destroyed by antiseptics and germicides. Ptomaines, being chemical productions, remain uninfluenced thereby.

Our first effort then becomes to destroy the bacilli, and as far as possible to prevent the elaboration of ptomaines. This is best accomplished by early, thorough and continuous local antiseptic treatment.

Our second effort is to counteract the depression and marked constitutional disturbance caused by the absorption of the chemical productions. This is best accomplished by supportives, stimulants and remedies to counteract the prominent symptoms as they arise. — *Northwestern Lancet.*

RHINOLOGY.

REMARKS UPON THE LOCAL TREATMENT AND SURGICAL MEASURES FOR THE RELIEF OF NASAL OBSTRUCTION.

By H. J. POMROY, A. M., M. D.

Assistant Surgeon, Diseases of the Ear, Nose and Throat, Rhode Island Hospital.

Read at the Clinical Club Meeting, Wednesday, May 17, 1893, Providence.

THE subject of nasal obstruction is too extensive for me to attempt to bring it before you this evening in its entirety. I propose to confine myself to the local treatment and the surgical measures for the relief of nasal obstruction, desiring to call your attention to the great importance of *early* treatment, in order to avoid the evil consequences which are sure to follow long continued nasal stenosis with the substitution of breathing through the mouth for that through the normal air-warming and air-cleansing nasal chambers.

I. NASAL OBSTRUCTION FROM ACUTE INFLAMMATION.

*"Immediately beneath the mucous membrane of the nose between it and the periosteum of the bony walls, and the pinchondium of the cartilaginous portion of the septum, there is a tissue which resembles the erectile tissue of the genital organs. It is a network of fibrous tissue, with which we find a few organic muscular fibres. Its meshes of various sizes and shapes are occupied by venous sinuses." *Dr. Bigelow* was the first to call attention to the similarity of this tissue and the cavernous erectile tissue of the genital organs, and to give it the name of "turbinated corpora cavernosa."

It is this tissue which is the seat of inflammation in acute rhinitis and the nasal obstruction is produced by the swollen and engorged mucosa and sub-mucosa. It is essential that the engorgement should be diminished as quickly and completely as possible, for it is the frequent and long continued congestion, which ultimately causes a loss of resistancy of

*Seiler. Diseases of the Throat, page 90.

the erectile tissue. It does not return to its normal condition, but remains engorged and finally the so-called local hypertrophy or the chronic form of hypertrophic rhinitis is developed.

Preparatory to the application of local measures for the relief of nasal stenosis, an alkaline antiseptic wash is necessary for the removal of any secretion which may be present. I know of no solution which gives such good results as that made from the formula furnished by *Dr. Seiler* of Philadelphia. The solution used has to be of the proper density for *"owing to the arrangement of the elements of the nasal mucous membrane we find a ready explanation of the fact that liquids of greater or lesser density than the serum of the blood, when introduced into the nasal cavities, produce pain, for we have here the most favorable conditions for osmosis, which will cause either a contraction or distension of the sinuses."

The first public appearance of the formula was published in the *Medical Record, Feb. 18, 1888*, and is as follows:

℞ Sodæ bicarb.
Sodæ biboratis, ... aa ʒi;
Sodæ benzoatis,
Sodæ Salicylatis, ... aa gr. xx;
Eucalyptol,
Thymol, ... aa gr. x;
Menthol, ... gr. v;
Ol. gaultheriœ, ... gtt. vi;
Glycerini, ... ʒviiiss;
Alcoholis, ... ʒii;
M Aquæ, ... ad Oii;

This formula of *Seiler's* solution you are all familiar with. The concentrated solution should be diluted one to seven before using. I have found that patients complain of smarting if the solution is freshly made. It should be at least three months old, for it is a fact that the solution becomes mellow with age, and is a more elegant preparation, bland and unirritating. After standing three months, occasionally shaken during that time, and finally filtered, it is ready for use. Tablets made from the same formula dissolve slowly and imperfectly in water, presumbly on account of some insoluble excipient in the tablet, and clog the tube of the atomizer. Patients sometimes complain of considerable irritation on using. The tablets are convenient to use while traveling, but for general use, I prefer the solution. These minor details may seem trivial, but in an acute inflammation of the sensitive nasal mucous membranes, it is advisable to be particular about the wash.

After spraying the nasal cavities thoroughly with the solution, nothing gives greater and more permanent relief than an application

*Seiler on Diseases of the Throat, page 91.

of cocaine, four per cent. solution. It is best applied to the mucous membrane in a pledget of cotton and allowed to remain ten or fifteen minutes. The contraction of the blood vessels, and the consequent relief of the stenosis continues very often several hours. The use of a stronger solution than four per cent. is unnecessary. Application with an atomizer increases the risk of annoying, if not grave constitutional symptoms of cocaine poisoning, owing to the fact that by atomization, cocaine is distributed over a greater absorbing surface. The action of cocaine is more localized if applied on a pledget of cotton, and it can be placed where the stenosis is most frequently the greatest, namely, between the inferior and middle turbinates and the septum. If a spray of cocaine is for any reason desirable for the purpose of reaching the recesses of the nasal cavities, a two per cent. solution is the proper strength to use. The Schneiderian membrane absorbs the drug rapidly. The local effect of cocaine upon the membrane is very marked. A patient presents himself suffering from a watery discharge from the nose, sneezing, lachrymation, and a very unpleasant irritation of his mucous membrane—in fact, all the symptoms of coryza. On examination with the nasal speculum, the membrane is seen to be red, injected, and swollen, so that covering the turbinated bones meets that covering the septum, and nasal breathing is impossible, the patient being obliged to breathe through his mouth. After *Seiler's* wash has been used, and a solution of cocaine has been applied to the membrane, the latter will shrink, the discharge will cease, the surface becomes pale and dry and the cavity restored, so that nasal breathing can be accomplished with the greatest possible ease. According to *Gleason*, of Philadelphia, the effect of cocaine is continued and prolonged by the use of a spray of a two per cent. solution of antipyrin. A spray of menthol, camphor and albolene 10 gr. to 3i is also a good addition to this treatment. I do not believe cocaine should be placed in the hands of the patient. The relief is so great after its use, especially in hay fever, that there is a tendency to over-use of the drug. *Stickler* in the *N. Y. Medical Journal, Oct. 31, 1891*, says, "Beware of the free use of cocaine in hay fever. If used freely, it seriously impairs the appetite. If used late in the day or during the evening, it is very apt to induce insomnia. The free use of cocaine induces in many persons a free diaphoresis. The excessive use causes troublesome congestion of the nasal mucous membrane."

This powerful drug prevents sneezing and allays irritation only when the membrane affected is under its anæsthetic influence, hence in bad cases it must be used almost constantly.

Cocaine in some persons causes a very pleasant mental stimulation,

which, while it lasts, is very delightful, but is invariably followed by mental depression and often by great irritability of temper.

It often causes troublesome constipation. It does not cure hay fever.

A correspondent in the *N. Y. Medical Journal*, in commenting upon the paper of *Stickler*, adds that the excessive use of cocaine has caused more than a troublesome congestion of the nasal mucous membrane. He has seen the whole interior of the nose lined with a croupous exudation, very tenacious and closely adherent to the mucous membrane. This local manifestation was due to the cocaine, which had been used for several days in a case of hay fever, and which had caused marked prostration of the patient's strength, and had failed to control the sneezing and asthma.

Another reason why cocaine should not be placed in the hands of the patient, is the danger of establishing the cocaine craving or habit. Different individuals vary as regards the production of pleasant or unpleasant effects from cocaine. Symptoms of cocaine poisoning are more apt to occur in subjects of an excitable, nervous nature, which is to be attributed to an elective action of the poison on the nervous centres.

The intelligent person who understands the action of cocaine is frequently the one, if the effects upon him are one of pleasure, to become the victim of the habit. I am acquainted with two rhinologists who have become addicted to the use of cocaine, through using it in their own noses for the relief of nasal obstruction. A wad of cotton, a solution of cocaine, and a pair of nasal forceps were carried constantly by them and frequently used. I have applied cocaine in varying strengths of solution in my own nose in order to note the effects. The sensation was not one of pleasure, neither did I detect any mental stimulation. A weak solution seemed to be absorbed more quickly than a strong one. The only symptoms noted were nervousness, inability to keep still, or apply myself to my work. At no time did I ever experience any of the alarming symptoms of cocaine poisoning.

II. NASAL OBSTRUCTION FROM CAUSES REMOTE FROM THE NOSE.

Alcoholic and venereal excesses will produce a swollen state of the turbinated structures. In some women menstruation pure and simple, or coitus in either sex may produce nasal irritation and congestion, or again pathological conditions in either uterus or penis. These consequences may be brought about by either reflex action or may be explained by the existing correlation between similar vascular and erectile areas in different parts of the body. These various causes will produce the same changes in the nose, as is found in acute rhinitis. If continued and often repeated, chronic changes in the nose are the result. The

peculiar erectile stroma explains the great rapidity with which tongescence or collapse of the mucous membrane is produced, and why it is that gravitation in certain portions of the body, as lying on the side, will cause complete obstruction of nasal passages situated undermost. The treatment of the nasal obstruction caused by these excesses, or the pathological changes in the generative or other organs in the body, is the discontinuance of the one, and the correction of the other.

III. NASAL OBSTRUCTION FROM CHRONIC HYPERTROPHIC RHINITIS.

Temporary relief may be gained by the application of an astringent solution, such as *Monsel's* solution after an application of cocaine, but for the permanent cure of this condition something more radical must be done. Some prefer the application of mono-chloracetic acid or chromic acid, and in selected cases these agents do well, but when the hypertrophy is great, as in the so-called anterior hypertrophies, I prefer the galvano-cautery. The edge of the cautery knife should be placed against the middle of the hypertrophy, and allowed to burn to the periosteum of the bone. If the flat surface of the knife is used, too large an area is burned. The knife should be heated before it is introduced into the nose, and passed through a metal speculum. There is no pain if cocaine has been applied, and if the knife has been heated, before touching the hypertrophy; but if the knife is cool when it comes in contact with the hypertrophy, and then the current is turned on, there is pain. If the current is turned off before the knife is withdrawn, the tissues cling to the knife. After the operation a slough forms, and the cicatrix binds the tissues to the bone. There is a slight inflammatory reaction, and the effect is similar to a cold in the head. The patient should be instructed not to use a nasal wash for a few days after the operation, as it prevents the formation of a scab. He should also be advised not to forcibly blow the nose, as that dislodges the scab and granulations will form if not carefully watched, and the operation will have to be performed the second time. Occasionally the space between the turbinated bone and the septum is so narrow, that the cautery cannot be used without burning the septum as well as the hypertrophy. If this does occur, abutments of new tissue form usually in the wound on the septum and hypertrophy, and finally a bridge connects the two sides, and offers as much, if not more, obstruction than the hypertrophy did before the operation. To prevent this accident, specula have been devised with an extension shield to protect the septum. These are useful instruments, especially when the hypertrophy is situated far back in the anterior nasal cavity, and when the space is narrow between the turbinates and the septum. If a bridge does form, it is best destroyed by dividing it with a knife or scissors, touching the

granulations with the cautery, and inserting a piece of tin-foil. The bridge is prone to recur, if something is not used to keep the granulating surfaces apart, until the parts are completely healed. If the anterior hypertrophies are large and pendulous, *Jarvis'* snare is the preferable instrument, either with or without *Jarvis'* needle to transfix the hypertrophy. Posterior hypertrophies are best removed with the *Jarvis'* snare, and the loop drawn slowly in cutting through the pedicle, as there is more liability of severe hemorrhage, than in the removal of anterior hypertrophies. There is very little pain and hemorrhage, when the galvano-cautery is used, but there is considerable inflammatory reaction, so that for nervous, sensitive patients who dread pain or faint at the sight of blood, the cautery should be chosen in preference to the snare for the removal of anterior hypertrophies.

IV. NASAL OBSTRUCTION FROM THE PRESENCE OF ECCHONDROSES OR EXOSTOSES OF THE SEPTUM OR A DEVIATED SEPTUM.

The nasal passages are markedly irregular. Even the septum is very rarely, indeed, a smooth perpendicular wall on either side, separating two adjacent cavities equal in extent and capacity. There is almost always a deviation, an inclination, a prominence, a spur on one side or the other. It is not necessary to remove every spur or correct slight deviations of the septum. In those cases where the patient complains of nasal obstruction and mouth-breathing, an operation should be advised. It is over-conservatism to advise against operations in these cases. Criticisms of an adverse nature have been showered upon the heads of rhinologists, to the effect that nasal surgery is being over-done as a specialty, and that unnecessary intra-nasal operations are being practiced. The progress which has been made during the last few years in the etiology, pathology and treatment of diseases of the nasal passages, serves as a justification of the position of the scientific rhinologist.

Ecchondroses usually occurs in the form of teat-like projections or spurs in the inferior portion of the cartilaginous septum, offering more or less obstruction in the inferior meatus, especially when there is a hypertrophy of the inferior turbinate immediately opposite. These spurs often have a bony centre. They can be removed with Seilers curved knife by cutting from below upwards and then from above downwards, using nasal scissors to cut through the osseous portion. On the acute angle of a sharply deflected septum there are frequently found cartilaginous thickenings. These can easily be removed with the curved knife. Shelves and ridges are found on the septum extending in various directions. They are osseous in structure and may be an

inch and a half in length. They are best removed with the saw, the drice or the chisel.

Nasal obstruction may be produced by the dislocation of the anterior extremity of the cartilaginous septum. During inspiration the dislocated portion acts like a valve, obstructing the nostril, and preventing nasal breathing on that side. The displaced cartilage can be seized with rat-tooth forceps or tenaculum, the mucous membrane dissected back and the cartilage removed with a knife. No sutures are necessary.

Deviations of the septum are often produced by hypertrophies of the turbinated bones pressing against the septum. Hypertrophies of the ecchondroses should be removed before any attempt is made to straighten the septum. Frequently enough space is obtained by such removals, so that straightening of the septum is not necessary, unless the deviation is extreme. For slight deviations the patient can be instructed to push the septum, several times daily, to the unobstructed side. In more pronounced cases, the operator can introduce the fore-finger into the obstructed side, and forcibly push the septum over beyond the median line and then pack the nose. *Steele* and *Roberts* have devised punches for making sections of septum at the greatest curvature, especially when there is a redundancy of cartilage, forcibly straightening the septum with *Adams'* Forceps, and keeping it in place by means of an ivory or wooden plug. *Harrison Allen* of Philadelphia and others have invented knives of different shapes for dividing the septum. Owing to the great resistancy of the cartilage, the septum springs back after these operations, as soon as the packings or plugs are removed. Moreover, they are painful, and are not tolerated by the patient. For the more pronounced deviations, the fore-finger is introduced into the obstructed side, and the septum is forcibly fractured. While the finger is still in the nostril, a steel pin two and a half to three inches long, is inserted through the skin, just below the nasal bones on the bridge of the nose, and driven with a lead hammer between the septum and finger into the notch of the superior maxillary bone. The pin is cut off about a quarter of an inch above the skin to allow for swelling and to prevent the pin being buried from sight. The pin is allowed to remain two weeks. *Roberts* uses pins within the nose to hold the septum in place after it has been divided with a knife and pushed in position. He also uses the pin through the dorsum of the nose.

V. NASAL OBSTRUCTION FROM THE PRESENCE OF NEW GROWTHS AND FOREIGN BODIES.

The neoplasm most commonly found in the nose is the myxoma or mucous polyp. Formerly the operator worked in the dark; normal

tissues and new growths were alike seized indiscriminately and torn away with the old preypus forcep. Now, with cocaine, the parts are anæsthetized and retracted, bringing the growths into plainer view, and, with the assistance of a strong, reflected light, the pedicle of a polyp is encircled with the loop of a snare, and easily removed with but slight pain or hemorrhage.

Polypi generally grow from a crevice or slit in the middle turbinated bone. *Woakes* claims that there is always necrosis of that bone. After removing the polypi, the base of the pedicles should be scraped with a curette, or touched with the galvano-cautery. The removal of fibromata, or the malignant tumors found in the nose, on account of the size which they attain, and the neighboring parts which they invade, concern the general surgeon. In operating for adenoid vegetations, the child should be etherized, placed on the side, and a gag put in the mouth. If the vegetations are soft, they are easily scraped away with the fore-finger. If they are found to be tough, they may be seized with a *Gradle Jack*, or *Lowenberg* forcep and removed. In some cases *Bosworth's* curette, or a modified *Gottstein* curette, are serviceable instruments if employed after the larger portion of the growth is removed by the finger. Some operators place the patient on the edge of the table, and allow the head to hang over the side, so that blood will not run into the trachea. This precaution is not necessary in my opinion. I have had no accidents, either at the hospital or in private work, with the head slightly forward.

Occasionally adenoids recur, but as a rule if the operation is thoroughly done, there will be no recurrence. Marked relief of the nasal obstructions follow the operation.

Various instruments, such as the snare, nasal forceps, or tenaculum, are serviceable in the removal of foreign bodies, with or without anaesthesia, according to conditions, nature of the foreign body, etc. Hemorrhage after any of these operations is usually slight. If a plug is necessary to use at the site of the operation, punk is more suitable than cotton. When the latter is used, granulations are apt to extend among the fibres of the cotton, and any attempt to remove it is liable to be followed by hemorrhage. *Punk* on the contrary, does not adhere to the wound, but swells up from the blood it absorbs, and like a blood-clot exerts pressure, from its increase in size. It is also easily removed. The patient should be instructed how to remove it, and how to introduce a fresh piece, if the hemorrhage persists or recurs.

In these operations, especially those on the septum, success will depend a great deal on the skill and experience of the operator in selecting the method of operation applicable in a given case.

ZOOLOGY.

THE GENESIS OF ANIMAL LIFE.

By EDWARD F. GAMWELL.

WHAT is animal life? This question very naturally comes to one as he looks upon the many animate objects all about him from the lowest up to the highest, which is Man. While no absolute answer can be given to this question, science points out very clearly the course of the stages of life from its remotest beginnings. The highest forms of life are traced back to their origins in a most interesting manner.

The foundation of all life is found in that mysterious substance known as protoplasm. Its very great importance is seen at once when the fact is stated that it is directly concerned with discussions in Biology, Anatomy, Botany, Morphology, Embryology, etc., and in all the discussions of the various groups and developments of animal life. A good example of protoplasm is the white of an egg. The chemical constitution of the substance is a combination of carbon, hydrogen, oxygen, nitrogen and sulphur, easily remembered by the group of letters, CHONS. A few words upon its history. In 1755 the eminent German scientist Rösel von Rosahof gave an account of *Proteus Animalcule*, or *Amœba*. In 1846 Hugo von Mohl clearly defined the cell, distinguishing the wall and nucleus from the cell and contents, and also the "tough, shiny, granular, semi-fluid constituent." He proposed the name Protoplasm, deriving it from two Greek words: *protos*, meaning first, and *plasma*, meaning formed substance. It was the first formed substance. While Rosahof was the first to bring protoplasm to notice in a general way, Mohl has the distinction of giving to the substance definite characteristics and its name.

A study of the Amœba will contribute to some specific understanding of the nature and persistance of the jelly-like substance called protoplasm. The Amœba is a protoplasmic organism, the lowest form of life of which Zoology teaches. The animal has a somewhat round or oval shape. Its organs are a nucleus, nucleolus, and a contractible cell for water. Granular protoplasmic matter surrounds the nucleus. The animal is often found creeping over plants, sending out projections of itself known as *pseudopodia*, false feet. It shows decided manifestations of life, being contractile, irritable and automatic, receptive and assimilatory, metabolic and secretory, respiratory and reproductive. Here,

even at the lowest stage, we find all the functions that can be attributed to the higher forms of life. The Amœba has no mouth, stomach or nervous system, but it takes food nevertheless. Coming to an object it would appropriate, it folds a part of its plastic body about it, and slowly absorbs it. In reproduction the Amœba undergoes a process called *fission*. This is merely a separation, the animal beginning to divide at the nucleus, and the process of division going on until two organisms, each like the original organism, have been formed.

The examination and knowledge of this substance known as protoplasm form one of the greatest achievments of modern science. This knowledge helps us to an orderly conception of the various stages of life, giving those data which will undoubtedly lead to greater knowledge in the future. Noted scientists after having established the phenomena of life based upon protoplasm, have endeavored to study the substance itself more minutely. Is protoplasm molecular?

To this question Spencer replies by stating his belief in "physiological units." Haeckel seems confident of the existence of "plastidules" in protoplasm. Darwin describes properties of supposed "gemmules," and Engelmann avows his belief in component "contractile units." As yet, however, these are all hypotheses, and the question must await further study.

DENTISTRY.

In Charge of S. W. CLARKE, M. D., D. D. S., President, R. I. Dental Society.

TEETH BLEACHING.

By DR. BELL, COLUMBUS, OHIO.

BLEACHING of the teeth may be described as any procedure whereby a tooth is changed from a darker to a lighter color. When the pulp in a tooth dries, and if it is left undisturbed, it exudes a putrescent matter of a discoloring nature, which infiltrates into the dentinal tubules, and from the effect of which the tooth assumes a brownish, greenish, or bluish tinge, very unsightly in comparison with the other teeth not so affected. The first thing to be done is to remove all decay and to enter the nerve canal and carefully remove every particle of discolored tissue, without disturbing the enamel. Donaldson's broaches and the various remedies, assisted with frequent hot water syringing, are all that is needed to accomplish this. Then apply the rubber dam and syringe freely with Larbanaque's solution of chloranate of soda, being careful not to get any upon the patient's face. The root canal is treated with dry chloride of lime first, and this moistened with diluted tartaric

acid, when it is quickly sealed and allowed to remain in place for ten or fifteen minutes; then the same process should be repeated two or three times. This treatment may be pursued for two or three days until an improvement in the color of the tooth is noticed, after which the whole interior of the crown may be filled with cement, and when this hardens, remove as much as is required to form a cavity for a gold filling. Oxalic acid, and the cyanide of potash are also used for their bleaching properties, but on account of their poisonous properties they should be used with great caution.

Dr. Harlan recommends the free use of preoxide of hydrogen and then placing a few crystals of chloride of alumina in the cavities which are moistened by the preoxide, permitting this to remain in the tooth from three to five minutes; after this the cavity is well washed with distilled water, when a solution of thirty grains of borax to an ounce of water is used to neutralize the acid. The cavity and the tooth are then well dried and filled with oxychloride of zinc and gold. Dr. Ames recommends electrolysis for bleaching. He first fills the root and moistens the cavity with acidulated water (one drop to the ounce of water, in order to make it a more effective electrolyte), then applies a metal electrode connected with the negative poles of the battery in contact with the moistened surface of the margin of the cavity and passes a platinum needle, connected with the positive pole of the battery, over the surface to be bleached. Upon closing the circuit the oxygen of the water is liberated at the positive pole near the surface to be bleached, and the hydrogen is liberated at the negative electrode outside the cavity. All of these methods have their supporters, but as yet we must say that the effect produced in many cases is only transient and not lasting, although in many cases the results are very satisfactory.

IOWA MEDICAL BOARD UPHELD.

Des Moines, Ia., May 9.—(Special). The Supreme Court this morning handed down its decision in the long contested case of the Iowa Eclectic Medical College against the Iowa State Board of Medical Examiners. It was an action in mandamus to compel the board to recognize and grant certificates to its graduates, the board having refused on the ground that the college did not come up to the requirements and standard fixed by the board in its teaching and appliances. The action was based on the claim that the law giving the board such power is unconstitutional, because there is no appeal from its decision. The court decides that the law is constitutional, and voted that the board has the power to fix the standard of medical colleges, and there is nothing in the statue requiring that any particular school of medicine shall be represented on the board. Judge Given wrote the opinion. This is in accord with the decision of the Supreme Court of Oregon on this question.—*Journal of the American Med. Association.*

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Alterations in the proof involving an excessive amount of work, will be charged to authors at the rate of 60 cents an hour.

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THE R. I. MEDICAL SOCIETY.

THE eighty-second annual meeting of the Rhode Island Medical Society, will be held at 10 o'clock A. M., Thursday, June 1st, 1893, in Tillinghast's assembly rooms, 283 Westminster street, Providence. Censors' meeting at same place at 10 o'clock.

Besides the usual order of exercises, there will be election of delegates to American Medical Association to meet in Milwaukee, Wis., June 6 to 10, instant.

Statement of trustees of Fiske Fund; communications and reports of special committees on legislation; presentation of guests and delegates

from other societies; paper by Dr. Charles H. Fisher, "Sanitary Legislation in Rhode Island;" the annual address at 12 o'clock by Dr. Charles V. Chapin, "The Purification of Public Water Supplies."

The annual dinner will be in the Trocadero, following adjournment. Dr. Franklin M. Eaton, anniversary chairman.

Through the courtesy of the Anniversary Chairman, Dr. F. M. Eaton, we are able to announce the following gentlemen among the speakers at the annual banquet at the Trocadero:

George H. Ames, D. M. D.; Col. Cyrus M. Van Slyck; Wm. H. Palmer, M. D.; Robert F. Noyes, M. D., of Providence; Rev. Wm. Groton, Westerly, R. I.; Charles A. Peabody, A. M., M. D., Worcester, Mass.

The outgoing president, Dr. W. H. Palmer, the incoming president, Dr. Robert F. Noyes, the anniversary chairman, Dr. F. M. Eaton, and the other gentlemen connected with the arrangement of this meeting, have spared no pains to make it highly instructive as well as entertaining, and no Fellow of the society should fail to attend *early*.

The papers to be read by Drs. Chapin and Fisher, promise to be particularly able, scholarly and practical.

EDITORIAL.

LOFTY words have been spoken in Great Britain lately, resounding throughout the whole medical world, touching tender sympathetic chords in many a physician's heart. Words like those spoken by Lord Salisbury, at the University of Oxford, recently, have the right ring to them and coming from one of his prominence, they cannot but be accepted as weighty and influential.

He said: "The older sciences, whose chief food is gathered from reflection are slowly, very slowly, but still quite evidently, giving away to the sciences which rely upon observation." He thought the science of medicine had hardly received the tribute which it ought to receive among sciences which rest upon observation. "It is," he said, "the most sober, the most absolute, and the most positive of all sciences. . . . It is a curious coincidence and a curious fact that at this moment the whole tendency of scientific thought appears to be rapidly concentrating itself upon the fields in which medicine reigns supreme." Then we have recently had the masterly oration by Rudolf Virchow before the Royal Medical Society, which will be published in the Monthly. It is a grand sight to see conservative Britain paying homage and honor to Germany's illustrious son.

True science knows of no geographical boundaries, national prejudices or narrow-minded differences, and what is done or said in one part of the world is known and appreciated universally. We take the lib-

erty to reprint the following from the *British Medical Journal for May 6, 1893*:

THE RELATIONS BETWEEN THE MEDICAL PROFESSION AND THE WORLD OF LETTERS.

Being an Abstract of the Annual Oration delivered before the Medical Society of London, on May 1st, 1893.

By W. Mitchell Banks, M.D., F.R.C.S.,

Professor of Anatomy in University College, Liverpool; and Surgeon to the Liverpool Royal Infirmary.

The Medical Profession and the World of Letters.—Poets, Philosophers, and Scholars who have been Medical Men.—Are Medical Students of To-day likely to Produce Philosophers or Scholars?—Defects of Middle-class Education.—The Duties of the General Medical Council.—Excessive Athletics.—An Exacting Career.—The Best Relaxation.

It was to be feared, Professor Banks said, that the nature of the study and practice of medicine was not such as attracted men to the field of literature. Neither the dry light of science, nor the sickness, pain, grief, misery, and death with which the practitioner of the art of medicine met in his daily work were likely to direct a man's mental footsteps down the sweet, shady alleys of poetry or fiction. And yet, in spite of all that, of the three learned professions—divinity, law and medicine—I believe we stand foremost in the number of distinguished literary men, who began life in our ranks. There was Goldsmith, and there was Akenside, forgotten as physician to St. Thomas' Hospital, unknown as Gulstonian Lecturer and Fellow of the Royal Society, but still remembered and admired as the author of *The Pleasures of Imagination*, and of some of the most beautiful pastoral poems imaginable. Sir Samuel Garth, the life-long friend of Pope—the man by whose kindly help the remains of Dryden were borne to their last resting place—was an admirable physician, and no bad poet, either. *The Dispensary* might sound a curious title for a poem; but Dr. Johnson said "it was on the side of charity against the intrigues of interest, and was, therefore, naturally favoured by those who read and can judge of poetry." Crabbe also might be claimed, for he was a general practitioner before he became the Duke of Rutland's chaplain. Passing from poetry to prose, Smollett was a name to conjure with them, and not only Sir James Macintosh but Locke had been members of the medical profession. In this day of Marie Bashkirtcheffs and similar sentimentalists who agonzied in public, it was a pleasant contrast to read the *Religio Medici* of Sir Thomas Browne, and we might claim also Mason, the translator of *Lucretius*, Leyden the great Oriental scholar, Thomas Young who deciphered the Egyptian hieroglyphs, "Delta" Moir, the country doctor who worked among the fisher folk and colliers of Musselburgh, and adorned the pages of Blackwood, and even now the Autocrat of the Breakfast Table, aged in body but alert in mind,

Lovers of learning, too, we might count—Linacre, who founded the College of Physicians, was probably one of the most learned men of his time, who was charged by Henry VII with the care of the education and health of Prince Arthur; John Key, who raised on the foundation of Gonville that College in the University of Cambridge which bears his name; Radcliffe, the founder not only of the infirmary, but of the library and the observatory in the University of Oxford, by which his name was

perpetuated; Mead, an accomplished scholar, one of the most erudite men of the day, and the founder of a magnificent collection of ancient art.

The enormous amount of professional knowledge which the modern doctor had to acquire, effectually prevented him from rivalling his predecessor of old in the field of general literature; but, while admitting this, "have we not," Mr. Mitchell Banks asked, "been neglecting too much that general learning and varied knowledge (apart from things medical) which are understood to characterize the members of a profession which proudly calls itself a 'liberal' one? I fear we have. There never was a time when our calling was held in such high esteem by our fellow men as now. Never before was the individual doctor so highly trained and so thoroughly versed in his own special work. But if you ask me what I think of the accomplishments, the mental culture and the extent of reading of our profession as a body, I am bound regretfully to say that they are not as extensive, not as high as they ought to be."

In looking for the reason of this state of matters he found three things conspiring to account for it. In the first place, there was the inferior school training—inferior among those boys who were educated in local private day schools because the teachers were often incompetent and untrained to teach, and inferior in better class schools owing to the undue prominence given to athletics. Both the teacher and the examiner were to blame that so many young men began the study of medicine while disgracefully ignorant in literature, and even in grammar and spelling. A vast number were rubbed through the sieve of the entrance examination of the licensing colleges who ought to be caught. The colleges might publish the subjects and the questions, but what was wanted in order to estimate the value of the examination was the answers. The General Medical Council had exacted a fifth year, and the question of the strictly professional studies of the student might be left aside. What was now wanted was that the General Medical Council should look more stringently into the entrance examinations. Let them get hold, not of the question paper of the examiner, but of the answer paper of the examinee, and let them ascertain what the standard really was which passed a man through the portals of our profession.

The second difficulty was the fact that so soon as medical study commenced, there came an interval of five years so enthralling in its claims on the student's brains and time, that it was an absolute blank to him as regards general reading. During that time he lost the habit and the love of it.

Thirdly, there was the exacting and exhausting nature of medical practice in after-life, so that when the doctor came home he had neither bodily nor mental strength to read. But Mr. Banks contended that in the love of good books was to be found the rest and comfort to be obtained nowhere else. If the love of letters were lost during the student period, it must be regained. Every wise man felt in his heart, that, if he lived sufficiently long, a time would come when ambitious toil and money-getting labor would cease to satisfy. He recognized early the fact that in order to enjoy his old age he must not only have a well-lined pocket, but a well-stored brain. For La Bruyère was right when he said that man too often employs the greater part of his life only to make the remainder miserable.

No profession in recent years had advanced and was advancing so rapidly as the medical. Its members were not merely healers of individual units of the population, but all through the length and breadth of the land medical officers of health stood on guard to ward off infection and pestilence from whole districts and cities. No statesman had ever spoken of the medical profession in terms of such admiration and respect as Lord Salisbury in his recent speech at Oxford. It was a speech full of meaning, a recognition in high places of the value of our art to the country at

large, a recognition, not merely of individual worth, but of the public value of that profession of which even the humblest private in its ranks was proud.

"I look forward with confidence," Mr. Banks concluded, "to the time when important public duties will fall to the lot of members of our profession, and when many posts of honor and distinction will be filled by them. Even at this moment is not a doctor holding a high and prominent position in the Government of the country—Sir Walter Foster? But, looking forward, as we all must do, to a greater position for medicine in the future than ever she has had before, will it not be incumbent on her followers, more than ever, to show themselves worthy of her? And the thesis, which I am here to maintain to-night, is that we shall not be worthy of her unless we are something more than mere prescribers of physic and healers of wounds. In my youth, I had it strongly recommended to me to stick to my profession and leave everything else severely alone. The life of a doctor was to see patients, do operations, order drugs, and collect fees. I thank God that I entirely repudiated this idea of my profession."

OUR CORNER.

The annual meeting of *The American Medical Association* which will be held at Milwaukee, Wis., June 6, 7, 8 and 9, promises to be one of the most interesting ever held. Every section presents names of men who by ability, learning and skill, have won places for themselves in the front ranks of the great army of American physicians. Many distinguished foreign medical men, among them *Mr. Ernest Hart*, editor of the *British Medical Journal*, and *Prof. Rudolph Virchow*, the German pathologist, teacher, statesman and writer, of Berlin, have signified their intention of being present.

CONFERENCE OF THE STATE MEDICAL EXAMINING AND LICENSING BOARDS.

The third annual meeting of the Conference of the State Medical Examining and Licensing Boards will be held at Milwaukee, Wis., on the 9th of June, 1893, under the presidency of John H. Rangls, M. D., of Illinois.

BROWN UNIVERSITY MEDICAL ASSOCIATION.

An important step in the interests of the University was taken last week in the formation of the Brown Medical Association. A call was issued by members of the faculty interested in establishing a medical course at Brown, furnishing a good preparation for medical colleges. A number of the alumni and faculty met in Rhode Island Hall, Thursday evening, to effect organization. Fall River and Providence were represented.

In calling the meeting to order, President Andrews said that the purpose was to get a closer relation established between Brown alumni in the medical profession and the University. It is desired to formulate a course which will give a student a good general education with enough medical work to lead him directly to a medical college, if he wishes. Professor Munro, one of the promoters of the idea, followed. He said that it was desired to secure a definite medical course, to get for this course a recognition at medical schools whereby some of the elementary medical studies may be anticipated in college, and to bring the advantages of the proposed course to the attention of preparatory schools. The name voted for adoption was the Brown University Medical Association.

After the professors at the heads of the various departments which will be concerned in the new course had made an explanation of the work to be done, the following officers were elected: Honorary President, C. W. Parsons, '48; President, H. G. Miller, '60; First Vice-President, G. L. Collins, '73; Second Vice-President, H. A. Whitmarsh, '76; Secretary, W. L. Munro, '79; Treasurer, J. H. Davenport, '83. The Advisory Board consists of twenty-one alumni, physicians of high repute in New York, Philadelphia, Boston, Hartford and other cities. After adjournment, refreshments were served and a social hour was spent.—*Edward F. Gamwell in Brown Daily Herald, May 24, 1893.*

PHARMACY.

In Charge of W. E. CATES, Ph. G., Secretary R. I. Pharmaceutical Association.

PHARMACEUTICAL NOTES.

By PROF. EDGAR L. PATCH.

INFUSIONS.

INFUSION, from *in* in, and *fundere* to pour, is the process of exposing a body to the action of a solvent poured upon it, literally, but in a general sense it has come to have a broad meaning and to include exposure to the action of an aqueous menstruum, cold or hot, for a comparatively limited period of time.

In a restricted, pharmacopœial sense, an

Infusion is an aqueous solution of the soluble principles of vegetable or animal drugs, obtained usually by maceration in hot water but in exceptional cases by percolation. They differ from decoctions in the lower degree of heat employed in their manufacture.

Drugs containing volatile principles are better adapted to treatment by infusion than decoction, and an examination of the U. S. P. 1870 list will show the class of drugs extracted by this method. They are usually prepared by pouring boiling hot water upon the drug, mixing well with the water, allowing to stand in a closely covered vessel for two hours, pouring off the liquid through a strainer and washing the dregs with enough water to make up to a specified volume.

The U. S. P. 1880 dropped most of the infusions and adopted a uniform process of one part of drug to ten parts of product.

Exceptions were:

Infusum Brayeræ. In which 6 of Kooso was mixed with 100 of boiling water and the product dispensed without straining. (One-half to one pint given fasting, as a vermifuge).

Infusum Cinchonæ. Cinchona, 6; Arom. Sulph. Acid, 1; water to 100 by percolation. If 1 of acid and 100 of water are mixed and water

used to make up the volume, the diluted acid solution will not retain all the alkaloid from a rich bark and the infusion becomes cloudy.

Infusum Digitalis. Digitalis, 3; Cinnamon, 3; Boiling water to 185, and Alcohol, 15. Dose, half an ounce as a diuretic, arterial sedative and cardiac stimulant. Should be made fresh, from select leaf.

Infusum Prunus Virginianæ. Wild cherry, 4; cold water to 100 by percolation. One to three ounces as a tonic and sedative.

Infusum Sennæ Compositum. Black Draught, should not be confounded with Black Drop, which is the poisonous Acetum Opii). Senna, 6; Manna, 12; Magnesium Sulphate, 12; Fennel, 2; Boiling water to 100. Two to four ounces as a cathartic.

The U. S. P. 1890 has adopted for infusions the general formula of 50 gms. of drug to 1000 c. c. of finished product.

Infusum Cinchonæ is six per cent of bark and one per cent Arom. Sulph. Acid.

Infusum Digitalis is about one and one-half per cent. of leaf and cinnamon water is substituted for the bark.

Infusum Prunus Virginianæ is four per cent. and made by percolation.

Infusum Sennæ Compositum is the same strength as that of the U. S. P. 1880.

DECOCTIONS.

Decoction, from *de* from, and *coquere* to boil, is the process of extraction by boiling.

A *decoction* may be defined as an aqueous solution of the soluble constituents of drugs, obtained by exposing them to continued boiling in water.

Substances of a resinous nature or containing volatile oils or volatile alkaloids should not be submitted to decoction.

The process should be conducted with care in all cases, pains being taken to have the temperature as low as possible and maintain gentle simmering. The boiling point of decoctions increases with the amount of vegetable matter contained in them and is modified by the common influences of style of container and atmospheric pressure.

In a tall, narrow vessel, the same quantity will be raised to a boiling temperature much quicker than in a shallow, broad vessel and is much hastened by a close fitting cover, this preventing the heat being converted into motion by the rapid evaporation from an exposed surface.

If the drug is in fine condition and allowed to settle upon the bottom of the dish it impedes circulation, subjects the drug to overheating by contact with the hot bottom and sides of the dish, and may yield a scorched or impaired product.

As boiling water hardens albuminous matter, the placing of many drugs directly in boiling water may prevent their proper extraction.

It is better to place them in cold water and stir as they approach the boiling point.

This permits the albuminous matter to be softened and dissolved, removed from the drug and subsequently rendered insoluble by the boiling temperature, insuring more thorough extraction and greater permanence of product.

It is best to cool to about 110° F. before straining, and as some principles are retained at this temperature which are less soluble at ordinary temperatures, the cloudy product should be marked—"To be shaken." Continued boiling of drugs containing both starch and tannic acid impairs their astringency from the formation of insoluble tannate of starch.

Improperly Made from Fluid Extracts.

A little consideration will show that the infusions and decoctions differ very materially from tinctures and fluid extracts and in but very few cases can the former be made from the latter.

For a pharmacist to make Infusion of Buchu and Infusion of Cinchona by mixing the respective fluid extracts with water and filtering is *inexcusably lazy and culpably wrong.*

Manufacturers may encourage the rapid consumption of fluid extracts by recommending this practice, but the pharmacist's good judgment and sense of integrity should keep him out of the trap.

Cocaine Poisoning.—Dr. A. R. Baker, of Cleveland, in a paper read before the N. E. Ohio Union Medical Association, reported a case of cocaine poisoning with very alarming symptoms, produced by eight drops of a 6-per-cent solution in the eye. Ten fatal cases were also read, indicating that a fatal dose is much smaller than generally thought, especially if the drug be used about the mucous membranes of the mouth, nose or throat, or by hypodermic injection.—*Western Druggist.*

Poisoning by Sulphonal.—Friedenreich mentions two cases of lethal poisoning with sulphonal. The symptoms were: Paralysis of all the muscles, especially those of the throat, so that patients were not able to swallow even water, and intense pain in the abdomen and extremities. The urine was of a special dark-red color; this symptom appears before the more alarming ones.—*Hospitals-Tidende.*

SOCIETY REPORTS.

MEETING OF THE WINDHAM COUNTY MEDICAL SOCIETY AT BUGBEE HOUSE, PUTNAM, CONN., MAY 9, 1893.

MEETING called to order by the President, **Dr. E. H. Davis,** who, in some well chosen remarks, reviewed the work of the Society and gave the Fellows present a hearty welcome.

Reading of minutes by the Secretary, **Dr. F. A. Morrell,** which were approved.

Voted that a tax of fifty cents be laid on each member for expenses for the year.

Newly elected members: **John Clifton Taylor,** University of Michigan, 1891, **Dr. Rainville,** Brooklyn.

A committee of three was appointed to suggest names for officers for the ensuing year.

Drs. Fox, Robinson and **Guild** were made such a committee.

The following Fellows were unanimously named and elected:

President, E. H. Davis.
Vice President, C. E. Hill.
Secretary, F. A. Morrell.
Censors: H. W. Hough, Lowell Holbrook, W. A. Lewis.
County Reporter, F. E. Guild.
Delegates to the Connecticut State Society: R. Robinson, R. C. White, J. B. Kent, C. W. Allen, F. E. Guild.
Alternates: W. H. Judson, F. W. Hills.
Delegates to American Medical Association: F. A. Morrell, W. A. Lewis, J. C. Taylor, C. J. Fox, Lowell Holbrook, E. H. Davis.
Essayist, L. R. Parker.
Alternate, Nathaniel Hibbard.
Delegate to Hyde County Society, C. J. Fox.
Delegate to New London County, L. K. Parker.
Delegate to New Haven County, R. Robinson.
Lichfield County, C. B. Griggs.
Fairfield County, F. A. Morrell.
Tolland County, L. M. Hills.
Middlesex County, J. C. Taylor.

It was voted to hold the next annual meeting at Putnam, subject to call of the President.

A few remarks by the venerable and learned **Dr. Holbrook,** on the *Physicians and their practice in former years*, were given, which will be published in full in another number of the Monthly, together with a history of the Society.

Remarks were also made by **Dr. Hill** on the subject, which will appear at the same time.

A letter was read by the Secretary from **Dr. Gage,** of Worcester, regretting his inability to be present.

An eloquent obituary was read by **Dr. Guild** on the death of **Dr. Kimball.**

A paper was read upon the *Etiology*, *History*, *Prevention* and *Treatment of Cholera* by Dr. **J. Fred'k. Haller,** of Providence, R. I.

Interesting remarks were made by **Drs. Holbrook and Kent,** which will be published with article.

Remarks were made by **Dr. Segur,** of the Hartford, Conn., Medical Society, on the Medical Practice Bill, now before the Connecticut Legislature, who was followed by **Drs. Hill, Kent, Fox** and **Robinson.** Much enthusiasm seemed to prevail for the enactment of such legislation, and all the speakers expressed themselves favorably of it and hopeful of its passage.

An excellent dinner was served by Mr. Salisbury, of the Bugbee House.

After dinner **Dr. Haller** was requested to give a talk on Hypnotism.

Adjourned.

This report will be continued in another number with a history of the society and sketches of its officers and members.

WHAT OTHERS SAY OF US.

"A Monthly Review of Reform and Progress in the Medical Sciences is the ambition of the R. I. Medical Science Monthly. It is edited by J. F. Haller, A. B., M. D.; A. B. Briggs, M. D.; Emil Lesser, A. B., Ph. D., and Wm. T. Luther, with a number of associate editors. The journal starts out in blue uniform and brim full of excellent articles. It is sure to succeed, if kept up to its original high standard."—*Pacific Medical Journal.*

"Having criticised the initial number of the R. I. Medical Science Monthly, we are in duty bound to note the great improvement in the general get-up of the March number."—*The Times and Register.*

"The R. I. Medical Science Monthly. We have just received No. 3, Vol. 1 (March), of this recent addition to medical journal literature. It is a very well printed and excellently edited monthly octave, of some fifty pages, and covers the whole field of medical science, including dentistry and pharmacy, in a concise and satisfactory manner. It is edited by Drs. Haller, Briggs, Lesser and Luther, of Providence, R. I., with some half a dozen associates in other localities. We are gratified to welcome so excellent a visitor to our exchange table from 'Little Rhody.' May it live long and prosper. Subscription price $1.50 per annum."—*The Southern Practitioner.*

Lonsdale, R. I., Jan. 18, 1893.

Editors R. I. Medical Science Monthly.

My Dear Sirs:—Enclosed please find my subscription. The general appearance of your Monthly is excellent. I have some conception of the work you have done.

Lucius F. C. Garvin, M. D.

State Board of Health of R. I.
Office of the Secretary,
Providence, R. I.

Editors R. I. Medical Science Monthly,

Dear Sirs:—I have heretofore, when occasion offered, felt disposed to speak very favorably of the R. I. Medical Science Monthly, and inasmuch as it is a distinctively R. I. enterprise, and brings together and keeps me so fully in touch in such convenient form with the proceedings and movements of the various societies, associations, etc., having existence in our state, and having relation, directly or indirectly, to the practice of medicine, to hygiene and general sanitation, I see no reason why I should not continue to give it my hearty commendation. Hoping it will prove a successful venture, I remain,

Yours very truly,
Chas. H. Fisher, Secretary.

"We are in receipt of the first number of the R. I. Medical Science Monthly, published in Providence. Among its editors we notice the name of our friend, A, B. Briggs, M. D., of Ashaway. It is a 'Monthly Review of Reform and Progress in the Medical Sciences.' It enters a field that was never before occupied in this state, and starts well. The subscription price is $1.50 per year, in advance; single copies, 15 cents. We wish its publishers success, and believe they will merit it."—*Westerly Daily Tribune.*

FUN, FORTUNE AND FORMULÆ.

Doctor: If you want a medical journal conducted by doctors for doctors, send in your name with $1.50 to the publishers of the Monthly and try it for one year.

Phytoline is recognized by the medical profession as the best, if not the only remedy in the treatment of obesity. It promotes the general health and appearance of the patient, at the same time it possesses the power of causing the absorption of adipose tissue. Write the *Walker Pharmacal Co., of St. Loius,* for literature and clinical reports on the subject.

ADHERENT PLACENTA.

Cold water, by rectal injection, has served Dr. Morton well in adherent placenta; it acts by reflex stimulation.

There is a rumor that a petition is in circulation among the patrons of the daily newspapers that no portraits of individuals cured by patent medicines shall be produced in their columns beyond life size.—*Boston Commercial Bulletin.*

We welcome to our advertising pages this month *The P. J. Noyes M'f'g. Co., of Lancaster, N. H.* This firm has had more than twenty years' experience as caterers to the medical profession. We have used the goods from their Laboratory for the past ten years with satisfaction. If you have never dealt with them, write for their price list, send them a trial order; we are sure you will be pleased with their goods and the treatment they will accord you.

A powder to be used in the nursery should possess antiseptic, antizymotic, and disinfectant properties. Fehr's—"Baby Powder" just fills the bill.

In habitual abortion, not due to syphilis, use Dioviburnia.

CHOLERA INFANTUM.

(Critzman.)

Salicylate of bismuth . .	13 to 15 grains
Wine of opium	1 to 5 drops
Rum	4 to 5 drachms
Infusion of tea	2 ounces
Syrup of raspberries . . .	5 drachms.

A teaspoonful every two hours. For intestinal antisepsis use injections of warm water, wash out the stomach, and administer calomel in doses of 1-12 to 1-6 grain, one dose every two hours according to the age of the child.—*N. Y. Med. Abstract.*

The *New York Medical Record* criticises us for spelling whiskey without an "e." We will remark parenthetically, that Webster spells it like we do, but then, Webster is not *Shrady*, you know; the fact is only mentioned to emphasize that Webster was a *chump*. Now, brother Shrady has had more spells of whisky than we have, and, of course, knows more about it,—we defer to his familiar acquaintance with the subject. He spells it, and doubtless, drinks it, with "e" s.—*Daniel's Texas Medical Journal.*

Doctor, if you wish to see nice clothing, call in and look over the spring and summer goods of Macullar, Parker & Company. If you make a purchase of them once, you will be sure to call again.

Mingled Faith and Patriotism.—"I don't want any castor oil," said a sick Boston boy, petulantly, "and I won't take it."

"Why, Horace," expostulated the mother, "don't you know that castor oil is made from beans?"

And the little boy, whose faith in his mother is perfect, took the dose, and feebly asked for more.—*Ex.*

LITERARY REVIEW—BOOKS RECENTLY PUBLISHED.

Psychopathia Sexualis, with Especial Reference to Contrary Sexual Instinct. A Medico-Legal Study. By Dr. R. von Krafft-Ebing, Professor of Psychiatry and Neurology, University of Vienna. Authorized translation of the seventh, enlarged and revised, German edition. By Charles Gilbert Chaddock, M. D., Professor of Nervous and Mental Diseases, Marion-Sims College of Medicine, St. Louis; Fellow of the Chicago Academy of Medicine; Corresponding Member of the Detroit Academy of Medicine; Associate Member of the American Medico-Psychological Association, etc. In one Royal Octavo volume, 436 pages, Extra Cloth, $3.00 net; Sheep, $4.00 net. *Sold only by Subscription.* Philadelphia: The F. A. Davis Company, Publishers, 1914 and 1916 Cherry Street.

It is the common lot of physicians to continually see the reverse side of human weakness and misery, and he who makes the psychopathology of sexual life a scientific study will be brought face to face with the darkest side of human life.

The author, after devoting some sixty pages to Psychology of Sexual life and General Pathology, continues the work under the following heads: 1. Sadism. So named from the notorious Marquis de Sade, whose obscene novels treated of lust and cruelty. Sexual Inclination Toward Persons of the Opposite Sex, with Perverse Activity of the Instinct. 2. Masochism. So named from the writer, Sacher-Masoch, whose romances and novels have as their particular object the description of this

perversion. The Association of Passively Endured Cruelty and Violence with Lust. 3. Fetichism. The Association of Lust with the Idea of Certain Portions of the Female Person, or with Certain Articles of Female Attire. 4. Homo-Sexuality or Urnings. Great Diminution or Complete Absence of Sexual Feeling for the opposite Sex, with Substitution of Sexual Feeling and Instinct for the Same Sex. 5. Effamination and Viraginity. 6. Androgyny and Gynandry.

Following these are chapters on the Therapy of the foregoing subjects.

Under the head of Special Pathology, we find Imbecility, Dementia, Epilepsy, Hysteria, Paranoia. The chapter on Pathological Sexuality in its legal aspect, treats of Sexual Crimes, Exhibition, Lust-Murder, Sodomy, etc.

To the physician, the jurist, our medico-legal expert, and to all earnest investigators in the domain of natural science and jurisprudence "Psychopathia Sexualis" is absolutely indispensable. That the work has arrived at the seventh edition is conclusive proof that it has been bought and read by others than the above; still there is much truth in the statement made in the translator's preface when he says: "In spite of this, the injury done by implanting knowledge of sexual pathology in unqualified persons is not to be compared with the good accomplished." The work has been conceived and written in a purely scientific and humane spirit; the most revolting portions are rendered in Latin.

We commend the book to the physician and jurist, who wish to add to their knowledge of the influence of heredity in sexual crime, disease and criminal anthropology. A. B. B.

CALENDAR OF MEDICAL SOCIETIES.

National Am. Academy, J. E. Emerson, Detroit, President; C. McIntyre, Easton, Pa., Secretary; Milwaukee, June 5, 1893.

National Am. Anatomists.

National Am. Andrological, E. R. Palmer, Louisville, President; J. A. Fordyce, New York, Secretary; Harrogate, Tenn., June 20, '93.

National Am. Climatological, G. T. Jackson, New York, President; G. H. Fox, New York, Secretary; Milwaukee, Sept. 5, 1893.

National Am. Dermatological.

National Am. Gynecological, T. Parvin, Philadelphia, President; H. C. Coe, Secretary; Philadelphia, May 12, 1893.

National Am. Health Resort.

National Am. Laryngological, C. H. Knight, New York, President; M. J. Asch, New York, Secretary; New York, May, 1893.

National Am. Medical, Hunter Maguire Richmond, President; W. B. Atkinson, Philadelphia, Secretary; Milwaukee, June 6, 1893.

National Am. Medico-Psychological, J. Curwin, Warren, Pa., President; H. M. Hurd, Baltimore, Secretary; Chicago.

National Am. Neurological.

National Am. Obstetricians, L. S. McMurtry, Louisville, President; W. W. Potter, Buffalo, Secretary; Detroit, June 1.

National Am. Ophthalmological, S. B. St. John, Hartford, President; H. Derby, Boston, Secretary; New London, Conn., July 20.

National Am. Orthopedic, J. J. Steele, Louisville, President; J. Ridlon, Chicago, Secretary; St. Louis, Sept. 19.

National Am. Otological.

National Am. Pædiatric.

National Am. Physiological.

National Am. Physicians, A. L. Loomis, New York, President; H. Hun, Albany, Secretary; Washington, May 30.

National Am. Public Health.

National Am. Railway Surgeons, C. W. P. Brock, Richmond, President; E. R. Lewis, Kansas City, Secretary; Omaha, June.

National Am. Rhinological, E. K. Lewis, Indianapolis, President; R. S. Knode, Omaha, Secretary; Indianapolis, October, 1893.

National Am. Surgical.

National Mississippi Valley, R. S. Sutton, Pittsburg, President; C. A. L. Fitzpatrick, Secretary; Indianapolis, Oct. 12, 1893.

National Pan-Am. Congress, W. Pepper, Philadelphia, President; C. A. L. Reed, Cincinnati, Secretary; Washington, Sept. 5, 1893.

State, Alabama, J. T. Searcy, Tuscaloosa, President; T. A. Means, Huntsville, Secretary; Tuscaloosa, April 8.

State, Arizona, J. Miller, Phoenix, President; J. T. Green, Tucson, Secretary.

State, Arkansas, J. T. Jelks, Hot Springs, President; L. P. Gibson, Little Rock, Secretary; Little Rock, June 2, 1893.

State, California, W. E. Taylor, San Francisco, President; W. W. Kerr, San Francisco, Secretary; San Francisco, April 18, 1893.

State, Colorado, W. E. Wilson, Denver, President; H. S. Lobinger, Denver, Secretary; Denver, June 15, 1893.

State, Connecticut, C. B. Newton, Stafford Springs, President; N. E. Worden, Bridgeport, Secretary; Hartford, May 24, 1893.

State, Dakota, North, A. P. Rounceseveille, Larimie, President; D. S. Moore, Jamestown, Secretary; Jamestown, May 25, 1893.

State, Dakota, South, A. L. Peterman, Parker, President; R. C. Warne, Mitchell, Secretary; Huron, June 4, 1893.

State, Delaware, E. W. Cooper, Camden, President; W. C. Pierce, Wilmington, Secretary; Rehoboth, June 13, 1893.

State, Florida, S. Stringer, Brookville, President; J. H. Douglass, Jacksonville, Secretary; Jacksonville, April 4, 1893.

State, Georgia, A. H. Smith, Hawkinsville, President; D. H. Howell, Atlanta, Secretary; Americus, April 21, 1893.

State, Idaho.

State, Illinois, E. F. Ingals, Chicago, President; D. W. Graham, Chicago, Secretary; Chicago, May 16, 1893.

State, Indiana, G. F. Beasley, Lafayette, President; E. S. Elder, Indianapolis, Secretary; Indianapolis, May 9, 1893.

State, Indian Territory, D. Bagley, Vinita, President; H. B. Smith, McAlester, Secretary; Atoka, June 5, 1893.

State, Iowa, C. M. Hobby, Iowa City, President; C. S. Chase, Waterloo, Secretary; Des Moines, May 18.

State, Kansas, F. F. Dickman, Fort Scott, President; G. C. Purdue, Wichita, Secretary; Topeka, May, 1893.

State, Kentucky, A. Dixon, Henderson, President; Steele Bailey, Stanford, Secretary; Frankfort, May 3, 1893.

State, Louisiana, S. E. Archenard, New Orleans, President; P. B. McCutcheon, New Orleans, Secretary; New Orleans, May 9, 1893.

State, Maine, A. H. Mitchell, Brunswick, President; C. D. Smith, Portland, Secretary; Portland, June 14, 1893.

State, Maryland, L. McLane Tiffany, Baltimore, President; G. L. Taneyhill, Baltimore, Secretary; Baltimore, April 25.

State, Massachusetts, J. C. White, Boston, President; F. W. Goss, Roxbury, Secretary; Boston, June 13, 1893.

State, Michigan, G. V. Chamberlain, Flint, President; C. W. Hitchcock, Detroit, Secretary; Muskegon, May 11, 1893.

State, Minnesota, A. W. Abbott, Minneapolis, President; C. B. Wetherle, St. Paul, Secretary; Minneapolis, June 21.

State, Mississippi, W. Kriger, Vicksburg, President; H. H. Haralson, Meridian, Secretary; Jackson, April 18, 1893.

State, Missouri, A. B. Miller, Macon, President; F. R. Fry, St. Louis, Secretary; Sedalia, June 30.

State, Montana, W. Trearcy, Helena, President; Dr. Ellis, Butte, Secretary; Great Falls, April 19.

State, Nebraska, M. L. Hildreth, Lyons, President; G. W. Wilkinson, Omaha, Secretary; Nebraska City, May, 1893.

State, Nevada.

State, New Hampshire, M. W. Russell, Concord, President; G. P. Conn, Concord, Secretary; Concord, June 20.

State, New Jersey, G. T. Welsh, Passaic, President; W. Pearson, Orange, Secretary; Spring Lake, June, 1893.

State, New Mexico, M. F. Desmaris, Las Vegas, Secretary.

State, N. Y. Association, S. W. McLeod, New York, President; E. D. Ferguson, Troy, Secretary; New York, October 19, 1893.

State, N. Y. Society, L. S. Pilcher, Brooklyn, President; F. C. Curtis, Albany, Secretary; February 7, 1893.

State, North Carolina, J. W. McNeill, Fayetteville, President; R. B. Jewett, Wilmington, Secretary; Wilmington, May 7.

State, Ohio, D. P. Allen, Cleveland, President; T. V. Fitzpatrick, Cincinnati, Secretary; Put-in-Bay.

State, Oklahoma, C. B. Bradford, President; Loss Walker, Oklahoma City, Secretary.

State, Oregon, W. E. Rinehart, President; C. H. Wheeler, Portland, Secretary.

State, Pennsylvania, H. L. Orth, Harrisburg, President; W. B. Atkinson, Philadelphia, Secretary; Williamsport, May 16, 1893.

State, Rhode Island, W. H. Palmer, Providence, President; W. R. White, Providence, Secretary; Providence, June 2.

State, South Carolina, W. H. Narlen, Anderson, President; W. P. Porcher, Charlestown, Secretary; Sumter, April 3, 1893.

State, Tennessee, C. W Beaumont, Clarksville, President; D. E. Nelson, Chattanooga, Secretary; Nashville, April 11, 1893.

State, Texas, J. W. Osborne, Cleburne, President; H. A. Weston, Galveston, Secretary; Galveston, May 2, 1893.

State, Utah.

State, Vermont, J. W. Jenne, St. Louis, President; D. C. Hawley, Burlington, Secretary; Montpelier, Oct. 14, 1893.

State, Virginia, H. M. Nash, Norfolk, President; L. B. Edwards, Richmond, Secretary; Charlottesville, October, 1893.

State, Washington, N. F. Essig, Spokane, President; O. G. Shaver, Tacoma, Secretary.

State, West Virginia, D. P. Morgan, Clarksburg, President; D. Mayer, Charlestown, Secretary; Parkersburg, June, 1893.

State, Wisconsin, B. T. Phillips, Menominee, President; C. S. Sheldon, Madison, Secretary; Milwaukee, May 3, 1893.

The R. I. Medical Science Monthly.

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A FEW WORDS ABOUT QUACKS AND THEIR REMEDIES.*

WHOLE libraries have been written about professional quacks, the curse of the people, who like vampires in the dark, suck their strength and vitality and like robbers part them from their money. There are also societies, which have made it their aim and object to exterminate this vermin in a most philanthropic manner by the publication of periodicals. But all is unfortunately wasted energy, for three powerful fairies act as sponsors to this monster, namely, superstition, ignorance and greediness, and they have the assistance of an influential cousin, the low, disreputable press.

Every trade had, in former years, a guild, with lawful rights, with which no one had a right to interfere. The trade of the quacks has now-a-days its privileges, illegal of course, but none the less powerful, and although of a negative nature, namely an indifference on the part of makers and officers of the law, which has been termed "*liederlich*," (depraved) by the German physician, *Mory*. If some adventurer secures money from an ignoramus by holding out before him the prospects of hidden treasures or a manufactured inheritance, the police authorities will interfere at once and chase the villain the world over, if necessary, and the newspapers will raise great cries of warning and picture him an infamous and meditating rascal. But if a villain not only cheats credulous people out of their money but besides, injures their health and lives, he is allowed to go free or very rarely is he fined, and then only a few dollars, which is nothing compared with the immense advertising he gets out of the case. For not only is he

*This paper is a free translation from *Dr. E. W. Wretlind's* Journal, *Helsovännen Stockholm*, for *May 9, '93*. The editor of that journal cheerfully admits that it "hits hard and well" existing miserable conditions, although he does not exactly approve of certain things in it. We thought it would fit our own needs here in New England so well that we have taken the trouble to translate it. We rather think it will furnish some food for reflection for some of our legislators who swear by perverted freedom, that is: ignorance, superstition, malpractice and humbug personified—the quack.—*Editor*.

made a martyr of "the jealousy of doctor no-cure," but attention is also aroused about the "wonderful healer," who always presents a few hundred letters from "cured and thankful patients" to the court, and his practice which before was rather unpretentious, now grows to fabulous dimensions.

It is first, however, when he turns his attention to criminal abortion that he becomes wonderfully successful. Hunting and fishing is forbidden in many places and it is often quite expensive to kill game or fish on other people's property. People who are injured by "wild" healers, can of course seek redress at law, but the Government does not protect them against the nefarious business of these quacks.

Is not this a slap in the face to those who represent science, general hygiene, law, rights, healthy and sound progress and development? Are not the people's life and health a national treasure as well as a few deer or partridges, or a few bushels of oysters or clams?

If law forbids people to drink or gamble after certain hours, why should it not in an equally forcible manner or more so, protect the citizens' health, for health is the only property of the poor? "Miracles are faith's dearest possessions" says *Goethe.* It sounds incredulous when people tell us that "the time of miracles is gone," that "we should not believe anything but what we see" and other expressions of deep wisdom, while the same "faithless ones," implicitly swear by "Doctor Greenweed's herbs" or "Madame Overlay's plasters," not to speak of those remedies founded entirely on superstition, super-natural and fictitious belief, which cannot but provoke in thinking people a ludicrous smile. Many Protestants laugh at Catholics because they sacrifice a wax image of their sick hand or foot, etc., to Virgin Mary, firmly believing that it will help their sickness, or else it is put up in some church or chapel. This action is, however, founded on religious belief. But if Protestants carry their extracted teeth in their pockets as a protection against further toothache, or do similar acts based upon superstition, inherited from a dark heathendom, they have no right to criticise their Catholic brethren.

What does the reader think of this? (The sensitive reader may pass this without reading it!) A young man with an inflamed finger consults a "knowing old woman." She at once suggests that, he shall find a virtuous young woman and ask her to pass her water on the sick hand, and this will effect a cure; but whether it should be done on a Friday evening with full moon and under a pear-tree or not, the story does not say.* After much hunting an homely old dressmaker was supposed to

*This was told by a physician to another and both were laughing over it quite heartily when one suddenly remarked: "But urine recently passed, has ,according to *E. Richter*, antiseptic properties!" Possibly, but that would not effect a cure!

be the woman he was looking for, and he had really the good fortune to find that he was right.

Stories of this kind could be told by the hundred, and happen daily, a pitiful evidence of the fact, that the much spoken of enlightenment of our 19th century is with similar proofs before us after all somewhat of a delusion.

(I remember of a patient coming to my office the other day with a little boy nine years old, suffering from *grand mal* due to traumatism. The father of the boy said he was sorry he could not apply the same remedy as had been used for his little brother, who also suffered from epilepsy. Upon questioning him he said that a virtuous maiden woman had passed her water in the boy's mouth, and that that had cured him, but he had been unable to have it done for this boy.—Translator.)

But, many will say, it is yet a fact that many patients are cured by so-called quacks, how will you deny that? Yes, this conundrum has at last been solved, which was so mysterious and unintelligible for our predecessors; quacks cure their patients as a rule by *suggestion*, which can be translated *faith through imagination*. The so-called hypnotic phenomena have thrown a new light over this hitherto obscure question. The most remarkable thing is, however, that the quack has usually more striking success with suggestion than the physician has, and how this can be effectively and quickly explained is not easy to say. The materialist may seek to explain away the supernatural as much as he choses; in the minds of the common people it is, however, deeply rooted, and the subservience to something mystical is really hereditary with man. It is, for example, a well known fact, that atheists are afraid of ghosts and they do not dare to stay alone in the dark. As the physician is an educated man, generally, who considers it his duty not only to cure disease and to prevent it, but also to wrestle with all the superstition that meets him every day in his work, he does, thereby, perhaps unconsciously, remove *that nimbus*, which otherwise would be attached to *his person*, and as he is constantly ready with explanations and information, all that *mystical* or *wonderful* which usually attracts the ignorant so forcibly, is made apparent as nothing wonderful whatever, but very simple and quite natural.

But on the other hand is the quack, "he is a good one he is," he knows some hidden, obscure things. No physician has as "queer eyes," as he has, and his sayings can, like the Delphian oracle be understood in different ways, and however the disease may turn out, he is always right. We must not, however, forget that there is usually a grain of truth in the old, from early history handed down, rules of living and methods of treatment which are the foundations of the quacks' operations, if he or she really follow certain principles and use nature's

methods and means, and not "strike at it blindly." Among nature's remedies we may mention, perhaps massage, gymmastics, hydrotherapy and dieting.

But these are exceptions to the rule. The most of our quacks are no geniuses, and have no new or wonderful remedies. At their best, they have one or two remedies, with which they cure all ills that flesh is heir to, and with these they effect all their wonderful cures. It is therefore desirable that all enlightened persons should oppose all such miraculous cures, which sometimes are quite harmless, but often lead to the most disastrous results. This should be done, not to protect physicians in their lawful operations, but to save the people from the ingenious devices of quacks, who catch big and fat fishes from the stagnant, stinking pool of the people's ignorant superstition. To improve things some people should be aroused a little and learn to show their approval or dissatisfaction with more justice than formerly. If a physician cures 10,000 sick people, for example, no one gives him any thanks for it; "for he only did his duty, that's all," people will say. But if he makes one (only one) "mistake," all the water in the sea and all the dust on the earth is stirred up over it—and perhaps it was no mistake after all, although vicious lying tongues made it so. If on the other hand a quack has "set a broken bone"—which he cannot possibly do, for it is "nature" that heals it, not the physician,—much undeserved bragging is done about it, and the people will forget the many graves he has helped to fill with patients through his stupidity, ignorance, greediness and self-laudation, patients who were sick with trifling ailments, but whose sickness through faulty treatment, was changed into deadly diseases, tetanus, blood poison, etc.

When it is reported that this or that one has been made an invalid by a quack, the people will usually say, with a tranquility that would be comical if it was not so disgusting: "Well he did the best he could, he is no college-bred rooster."

There is a remarkable trait of opposition in many people, who otherwise appear as honorable and just, which often gets the best of their sound judgment. In conflicts between the police and the law-breaker, the customs officer and the smuggler, the regular physician and the quack, the sympathies of the people are usually with the latter.

If people in general, during health or disease, would obey the doctor as faithfully as they do the quack, it would render a physician's life very easy indeed. But while most sick persons blindly obey the often ridiculous directions given by the quack, they consider it as rather good tact and a particular pleasure to disobey the orders given by the physician. His directions are not followed at all, or only partly so; the patient does not avoid such things as he has forbidden, and without con-

sulting the doctor changes and additions are made, about which he has not the slightest idea; and afterwards he is bitterly criticised, when the patient suffers the consequences of his fool-hardy doings. This is not just, it is more than unjust, it is stupidity, which brings with it punishment in many varied forms.

ITEMS FROM THE EIGHTY-SECOND ANNUAL MEETING OF THE R. I. MEDICAL SOCIETY.

HELD AT PROVIDENCE, JUNE 1, 1893.

Wm. H. Palmer, the President, in the chair.
Dr. Wm. R. White, Secretary.

Providence was selected for the quarterly meeting in September.

The Special Committee on Legislation, made a verbal report through its Chairman, **Dr. G. T. Swarts.**

"Your committee have to report that they have during the past Legislative term endeavored to obtain a passage of a very mild form of the so-called 'medical bill.'* The bill provides that there should be simply a registration of all those who practiced or pretended to practice medicine or surgery in the State of Rhode Island. It seems as if most any legislature, even with the most ignorant members, might have passed a bill of that kind. The bill was lost by a very close vote. The principal opposition to the bill came from the lower part of the state. The member from Newport voted adversely, although representing a city. The reason of this vote was given, that the members of this society residing in Newport urged upon their representative not to vote for this bill nor to support it. If the members of the society are working against the endeavors of the committee, I think, Mr. President, the committee had better be disbanded. If there is such an idea, I wish they would express it as there is considerable work attending the Legislature. Therefore I would ask a vote of the society whether they wish the committee continued or not."

Dr. Henry Turner of Newport:—"The remarks of **Dr. Swarts** put me in a position to make some remarks. I rather suspect that I am guilty as to what is charged towards defeating the bill. I met our senator, Mr. Burdick, and he asked me if I was satisfied with that bill. I had not then read it, but saw it afterwards in the R. I. Medical Science Monthly, and went home and read the bill over with a great deal of care. I could not see any advantage in it. It seemed to me that

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it put the quacks on the same plane as ourselves. It seemed to be on the side of quackery more than anything else, and I think if other members of the society have looked over that bill that they will come to the same conclusion as I."

Dr. Swarts:—"I am glad to hear the expression of the gentleman from Newport. I would therefore like to get the opinion of the society. The committee has labored strenuously for the last three years. They have studied the various features of the case and have learned of various points that they did not know before. We found there was no chance for a good bill. We therefore substituted this "Registration Bill," which seemed to favor the quacks, and placed us on a par with them. I would like to ask whether they are not at present on a par with us? I would further add that the committee looked upon this bill thus:

Those who have had experience with the Legislature know that a bill, which is already enacted, is more easily amended than it is to obtain the passage of a new bill, and with registration every one who is practicing now would put his name upon record, and such a record would be sufficient to support any amendment to the original bill, and time limitation of practice would be more successfully controlled. I would again like to ask for the expression of the society as to whether they wish the committee continued or not."

Dr. Mitchell moved that the report of the committee be accepted and the committee continued, which motion was carried unanimously.

The President, **Dr. Palmer**, stated, "that the committee on 'the Amendment of the Act on the Insane' had passed the Legislature. The insane will no longer be compelled to be brought into court or exposed to publicity. Hereafter, doctors shall have the power to examine into the condition of such persons wherever they may desire. I think this is a great advance over the old judicial processes."

The President introduced the following delegates to the annual meeting:

Dr. Henry M. Williams of the *Boston Medical Society* acknowledged the cordial reception given him and said that it always gave him great pleasure to come to Rhode Island as one of the deputed sons. The doctor brought with him the best wishes of his society.

Dr. Charles E. Briggs, of Connecticut, extended the greetings of the *Connecticut Medical Society*. "The Legislature has passed a 'Registration Bill,'" said the doctor, "which was very pleasing to the Connecticut Medical Society. Of course it remains to be tried whether it is good or not, but as far as it goes, the hope is expressed that it will accomplish the suppression of quackery. The homeopaths of Connecticut were as much in favor of the bill as the allopaths. I would suggest that Rhode Island follow that line and obtain the support of the homeopaths.

"It gives me particular pleasure to be here, for I am almost in Rhode Island, only just over the border, and claim an ancestry in Rhode Island, my father being a Providence man."

Dr. E. P. Stimpson from Vermont said it gave him much pleasure to bring the greetings and recognition of the *Vermont Medical Society* which they should be pleased to have returned.

Dr. A. G. Straw, of New Hampshire, said: "Although a stranger in your city I feel particularly fortunate in being a delegate to the fraternity in Rhode Island, and I bring you hearty greetings from the 'Old Granite State.' We are in a state of trouble even worse than you are in in regard to the medical bill. We already have one that was pronounced unsatisfactory by the Supreme court, and the reaction has been even worse than if there had been none."

Dr. J. R. Bronson, of Attleboro, Mass , honorary member of the society, was invited by the President to address the society, and spoke as follows: "It always affords me pleasure to meet my professional brethren in annual and quarterly meetings. I have felt for many years that the social side of our nature, as a profession, was neglected. We need to get out of the ruts of professional practice more frequently, and engage in those qualities of the mind, that men who labor less than we do, require and receive, while we are trained, and work, not as slaves were trained to work, but as men who are devoting themselves to, and obtaining, the highest medical attainments. One thought: the question of medical Legislation in Rhode Island has been introduced here, and objections were given to the form of the bill, as I understand, that was given by your committee for adoption. I think the experience of Massachusetts has been that no matter what the character of the law is, it will be objected to and resisted by opponents of scientific medicine. I hope, therefore, that if this committee is continued that the fruit of their endeavors will be satisfactory to the scientific medical society and to the men to whom we look for our best efforts in scientific medicine."

Dr. J. F. Noyes, of Michigan, an honorary member of the society, was also called upon for remarks, and spoke as follows: "It always affords me great pleasure to meet the gentlemen of the profession to which I belong. I have met with many societies in different states from Texas to California. Now in regard to the legislation. We are meeting with a great deal of difficutly. We have been laboring for years and we have a legislative bill, which requires all members of the profession to sign their names with the clerk. I signed my name before a most notorious quack, an Indian doctor, and I felt really ashamed to put my name down, but I had to do it. We are now trying to get something better than that. We want to get a

bill that will leave out the Indian doctors, but so far the quacks have been too many for us. Since they obtained a good law in Illinois all the quacks have gone to Michigan, having been driven out of Chicago. They have had more influence in the Legislature than we can bring."

Dr. Charles H. Fisher, Secretary of the State Board of Health, read a scholarly and instructive paper on: "Sanitary Legislation in Rhode Island."

Dr. Charles H. Leonard reported: "A case which I thought would be of interest to the society as it was to me. I had a patient, a little child 13 months old, who had been most carefully cared for by wise parents by adoption, and by a skillful physician, who had been carried through the first twelve months of life very well, though with some difficulty. But when it was 13 months old, after it had its first eight teeth, and was cutting the next eight, the double teeth, he began to fail. The gums were red, turgid, and ecchymosed from the new coming teeth. This child had been under the care of another physician in another state. At the time I saw it, three or four of the back teeth had come through, but the gums were still swollen, and, in front, over the incisors, there was a swelling of the gums, extending downward like a flap over the teeth, and having a very peculiar appearance, inasmuch as the gums and mucous membrane generally were sound, but just over these front teeth and along over the back teeth, the gums were decidedly ecchymosed. I gave them an astringent wash. The child being no better the next day, I made an incision over the frontal gums but the turgid condition was not relieved at all. I noted that the child also had very great tenderness in the limbs, especially about the knees and about the feet. It would not bear its little shoes, and it would not permit its limbs to be handled. Realizing that this must have been part of the general condition of the disease, I looked up many authorities, in vain, but finally found in Keating's Cyclopædia of Diseases of Children, the article by Dr. Thomas Barton upon "Scurvy in Children," which exactly described this condition of affairs. On reading this description I put the child on the treatment there suggested. The child had been fed on Fairchild Bros. milk powder and sterilized milk. It had been kept on that for five months, and had done well on it until this condition developed. The treatment was not to sterilize the milk but to give the peptonized milk instead, and give each day the juice of an orange, and eight or ten teaspoonfuls of the juice of freshly broiled steak. No medicine whatever was ordered. It was astonishing to see the improvement. It was astonishing to see the eagerness of that little baby for that orange juice, and it was astonishing to see the decided improvement of this little child. In two weeks, I may say, it was quite well.

It has been stated that young children do not have rheumatism. It seemed to me that this was a case that would naturally have been taken for rheumatism, but a treatment for rheumatism would have been bad for a case of this sort.

I had in mind another child who had a similar condition of the gums, which I treated several years ago, giving Malaga grapes. It was intensely eager for anything of that sort. I remember that as being a curious thing. It seems to me, according to the way that children have been fed with sterilized milk that we are apt to forget its dangers, and I am satisfied now, that it is not a safe thing to follow for a long time continuously.

I should say that the rheumatic symptoms in these cases are characteristic of the disease and are probably due to ecchymoses underneath the periosteum in the legs and feet.

Dr. Horace G. Miller, in behalf of the library committee, desired to ask the Fellows of the Society for an appropriation for the library, which was generally granted to the committee at this time of the year. "There is a proposition before the committee that the Public Library, when it has fitted up its proposed new quarters, take care of our library, and that the students of medicine and the public should have the use of this library as well as the Fellows of the Society. If, however, we at any time have a building of our own, the library would of course be returned to our own keeping. The treasurer thinks we can afford $200 toward binding, etc., and I move that $200 be appropriated from funds not otherwise called for from the treasury for the use of the library committee." The motion was carried unanimously.

The Annual Address was then given by **Dr. Charles V. Chapin,** Health Officer of the city of Providence, upon: "Purification of Public Water Supplies;" a marvellous presentation of experiments made by the city of Providence and by cities all over the world.

The President, **Dr. Wm. H. Palmer,** said: "I wish to say a word before I have the pleasure of introducing the President-elect. I desire to thank you, gentlemen, for the courtesy extended to me during the past two years. I desire to thank you for the assurance I have that my omissions and errors have been supplemented by your kindness. I desire to thank those Fellows who have so kindly and promptly responded when asked to prepare papers, and those who have so kindly seconded and ably discussed those papers. I desire to believe and entertain the hope that during the past two years this society has not lost its step in its march of progress, that it has not gone back, but has fully held its place with the medical profession of to-day; and now, Gentlemen, as my last closing act, I have the pleasure of introducing to you, one you have elected to succeed me, a close student of medicine, who has been

studying to gain that knowledge which would enable him to know when not to do, and this is the highest knowledge in medicine. I congratulate the society in having elected to the office of President one that must be an honor to the position and one who will promote progress of the society." The President thereupon requested Dr. Mitchell to conduct the president elect to the chair and said: "I have the honor of introducing to you the President, **Dr. Robert F. Noyes**, who will conduct the business of the 82d annual meeting of the society to its close."

Dr. Robert F. Noyes—"Fellows of the R. I. Medical Society: For the honor which you have conferred upon me by electing me to the highest office in the province of the society to grant, I now extend to you my sincere appreciation and thanks. I had hoped that the mantle of honor should fall upon another, but I accept the trust, because as a Fellow of the Society I believe it to be my duty to perform my part of the work, and shoulder my part of the responsibilty. You must remember that the officers constitute the machinery; that machinery is powerless until force or power is applied to it, and that the force or power of this society lies in the individual members upon the floor. Let us work together that the honor, character and dignity of this society may be maintained."

Upon motion, the thanks of the society were extended to **Dr. Wm. H. Palmer**, the retiring President, for the delicate courtesy, tact and able manner in which he had performed the duties of his office.

THE ANNUAL DINNER AT THE TROCADERO.

Dr. F. W. Eaton, the Anniversary Chairman, conducted this part of the meeting in an exceptionally satisfactory manner, and we dare say that this was one of the most enjoyable meetings the society ever had. The various speakers were introduced in choice, eloquent words, and the first toast proposed, after an exquisite dinner had been disposed of—one of Tillinghast's best, was, the toast to the *R. I. Medical Society.*

"THE RHODE ISLAND MEDICAL SOCIETY"—RESPONDED TO BY THE PRESIDENT, DR. ROBERT F. NOYES.

"Not all the waters in the rough, rude sea
Can wash the balm from an anointed king."—*Shakespeare.*

"I am glad to respond in behalf of the R. I. Medical Society and although not given to public speaking and especially that kind of speaking which is expected after dinner, when it is hoped that there shall be a free flow of oratory, wit and humor from the mind stimulated by the festivities of the occasion and by the body made plethoric by eating, yet I cannot refrain from responding to the call of the execu-

tive officer of the hour, especially as he proposes to me the sentiment, The Rhode Island Medical Society.

"The R. I. Medical Society in celebrating its eighty-second anniversary exemplifies the truism which has previously been laid down by one of our most honored fellows,—that societies enjoy the privilege of growing old without becoming decrepit. Already this society has passed the three score years and ten, allotted to the life of man in the Good Book; yet to-day it presents no evidence of senile degeneration, but is possessed of the same vigor as of yore.

"The society of to-day is the creation of that of yesterday.

"Upon the pages of history of the R. I. Medical Society, I see the names of Bowen, Fiske, King, Eldridge, Parsons, Mauran, Capron, Collins, Ballou, Kenyon and upon this same page I see the names of many others of our fellows who have passed on before us. We are proud of our progenitors and see through the law of inheritance the reason for our longevity and the reason for our strength.

"Upon the same page of history we read that the R. I. Medical Society has served the State of Rhode Island in several important particulars.

"This society had to do with the passage of that law which requires the registration of births, deaths and marriages. This society was particularly instrumental in the passage of that law which says, 'pharmacists shall know what they are about before they are allowed to compound drugs for the public.'

"This society had to do with the passage of the medical examiner law which is a great improvement over the old coroner system.

"This society recently has interested itself and was instrumental in the passage of a law for the prevention of blindness in the new born babe and this society has raised its hand—it has knocked and it has spoken in regard to the legislative control of the practice of medicine.

"When it is remembered that the R. I. Medical Society constitutes a part of the body politic of the State of R. I. and Providence Plantations, upon the very soil of which there is written in great letters so that he who runs may read 'Soul Liberty of Roger Williams,' that benign sentiment which truly has reference to the worshiping of God according to the dictates of one's conscience and the separation of the Church from the State, but which has been extended to the ballot box and to our legislative halls, and which has had so much to do and continues to have to do with all of our institutions and all our laws, I say when this is remembered and when now it is greatly feared that there will be no legislation in R. I. for the coming year—the R. I. Medical Society congratulates itself and is proud that it has accomplished as much as it has.

"To the past fellows of this Society, to the inheritance which they have given us as well as to our own existence these achievements are due—and it seems to me that our progenitors have exemplified the saying, and may this society continue to exemplify that beautiful sentiment which was so sweetly sung by that illustrious poet who lived across the border line in the Commonwealth of Massachusetts, when he said:—

" 'Lives of great men all remind us
We can make our lives sublime.
And, departing, leave behind us
Footprints on the sands of time.'"

"THE PHYSICIAN IN COURT"—RESPONDED TO BY COL. CYRUS M. VAN SLYCK.

"Between two hawks, which flies the higher pitch;
Between two dogs, which hath the deeper mouth;
Between two horses, which doth bear him best;
Between two girls, which hath the merriest eye—
I have perhaps, some shallow spirit of judgment;
But in these sharp *quillets* of the law,
Good faith, I am no wiser than a daw."—*Shakespeare.*

"I suppose the chair voiced the sentiments of all the members of the society in the quotation with which he has introduced me. It would be a very great pleasure to me if I were able to instruct the Chairman and through the chair to instruct you, gentlemen, in those interests in which you have professed great ignorance. It seems to me, since I have been in this building, I have forgotten the profession which I entered some years ago. I have forgotten that I ever entered a court room, or a court house, and I believe that I can convince you that I am no longer a representative of the legal profession, and that I have received my degree of M. D. as you have. In passing through the ante-room containing the exhibits, one of the gentlemen, who very pleasantly passed round the articles of doubtful utility there exhibited, insisted that I should try some of them, and he would not allow me to go until I had tasted something and registered my name, and I now feel as though, after passing through this ante-room I had passed my final degree and can now sign myself, if I saw fit, 'Doctor.'

"The question has been propounded to me, why the position of the physician in court was any different; does he occupy any different position or status from any good, intelligent, well educated citizen? The physician stands upon no different footing from any other citizen. His profession makes no difference to him. But when, as frequently is the case, the physician is called into court to assist the tribunal in ascertaining the truth, and assist the tribunal to administer justice, as when he is called in as a witness, he may or may not occupy a position of his professional training or standing. Ordinarily

a witness, as you are aware, is allowed to testify only to matters within his knowledge. He is allowed to tell what he has seen. He is allowed to tell what he has heard sometimes, but he is expressly debarred, under general rules, from expressing any opinion which he may have derived from facts concerning which he is to testify, the facts which he has conceived. In the case of the physician when he is called to testify, as to what he has done in the way of treatment, in the case, perhaps, of some surgical operation, where there are actions for damages, one of the elements may be the charges of the surgeon. Of course, the reasonableness of those charges is at issue, and the surgeon may be asked as to the treatment which he has employed, and also if the treatment which he has employed may or may not have improved the condition of the patient, as the case may be. Now so far as he is called to testify to what he has done, or what he has heard, or as to communications which have been made to him, he stands upon no different footing from other citizens. Communications which are made by the patient to the physician are not privileged, and when asked as to those communications you are bound to answer, and if you refuse to answer your refusal is at your peril. There are, however, occasions in which witnesses are allowed to testify as to their opinions. Stated generally, there are those cases in which the question is one which develops the determination of some important matter requiring special technical knowledge. Sometimes it is a case of handwriting. We have a class of people who are known as hand writing experts, that is, those experts who are able by the writing to determine whether a given piece of paper was written, or was not written by the party authorized to do so. There is no class of persons who are more frequently called upon to give opinions which are derived from their professional training than the gentlemen of your profession. My experience has often led me to inquire how far a physician, who is summoned on a case as an expert, to give in his opinion, is justified in identifying himself as an advocate with that side of the case upon which he has been summoned. It is a question upon which more than one opinion can very easily be held, and it is a question, which, at this time, I will not endeavor to answer. There are one or two things, however, which I would like to say upon that matter. I have seen many a case of deep importance which has been lost or won, not because of the ability of the counsel, but because the result has depended upon the ability of the medical experts. It has depended upon the ability of those men who have coached the counsel in medical facts and have taught them intelligently to cross examine medical experts, and to bring out the truth. There is no question but the position of the medical expert in court is of the deepest importance. It has been said by members of my profession that the

day of expert testimony has gone by. That you can have experts that will prove anything you may desire. I do not think that that opinion obtains with regard to experts who are summoned from your profession. There is no doubt but courts and jury place the very highest dependence upon the professional statements which you gentlemen make under oath. It seems to me that the physician is justified in becoming to some extent an advocate of the cause to which he has been summoned, and that it is his duty as a matter of ethics to examine into that cause very thoroughly before he enlists himself. It is said that a lawyer fights upon either side upon which he is retained. In defending my profession, it is fair to say, a lawyer must fight upon either side according as he is retained, because according to our constitution and laws, every man has a right, when his case is presented before the courts of his country, to have that case fairly and properly presented. I do not mean to say that we are at liberty to take unfair advantages, but it is our duty to present the case according to our best ability, and in accordance with the facts and law as we know and understand them. But with you, gentlemen, when summond as experts you must first determine, so far as you can, the justice of the cause in which your services are sought to be engaged. Having once determined as to the justice of the cause, it seems to me, it is your duty to go ahead and by every means in your power prepare for the most searching examination as to your knowledge, theories and the value of your knowledge. Having done this, it is your duty to post your counsel thoroughly in these theories. The general public does not appreciate the value and the importance of your position in the courts of justice. We do appreciate your services in the sick room and at the operating table, and to many of us has come by sad experience, a just appreciation of what a kind and tender hearted physician can do to raise those cast down by grief and sorrow, but to my mind in no part of your professional duty are you called to a higher and nobler plane than when you are called to assist in administering right and justice, when upon your knowledge, experience, fidelity and honesty depends the property, liberty and even the lives of your fellow men."

"HOSPITALS"—RESPONDED TO BY DR. CHARLES A. PEABODY, WORCESTER CITY HOSPITAL.

"Properly managed, the greatest blessing to suffering mortals—for within their walls Faith, Hope and Charity abide."

"I wish first of all to express my thanks for the opportunity of meeting the gentlemen of the Rhode Island Medical Society on this occasion. We have always felt an interest, not only in the excellent reports from Rhode Island, but of the perfectness of her institutions and the

medical profession, and would certify to the ties of fraternity between yourselves and the medical profession of Massachusetts, and they are growing stronger as the days go by. So it was with great pleasure that I responded to the invitation to be with you here to-day. I come not so much to make a speech as to look you in the face and take you by the hand, and I trust to form some agreeable acquaintances.

"I do not propose to go into the question of hospitals in a specific manner, but rather in a very general way. It is well that I should quote a remark from the report of the supervising Surgeon General, of the Naval Hospital of the United States—the very exhaustive report which he made on the European hospitals some three years ago, 'That all the hospitals in Europe which were worthy of our imitation had been erected within the last five years, or were then in process of erection.' The purport of this remark is, that hospitals in this country have attained a very high degree of excellence. It is generally the custom in speaking of hospitals to say that they were unknown before the early centuries of the Christian era; historically I believe this to be correct. There may possibly have been isolated instances of individual effort. The old Roman esteemed nothing foreign to himself, which touched the interests of his fellow men. If we look over the records of antiquity, we find among those names few of whom it may be said that they were lovers of their race. The Hindoo, to-day, for the sake of laying up treasures in heaven, erects hospitals for cats, dogs, horses, birds, and venomous reptiles, believing that thus he is ministering to some transmigrative ancestor, but he never builds a hospital to relieve the suffering of his fellow men. His brother who is overtaken by disease or injury, is left to miserably perish. As we find the value of human life increasing, the preciousness of humanity, which is the product of that humanity, the glory of the Christian civilization, we find the hospital and the asylum. Early hospitals were especially to succour the distress of the poor, and those who were without a home, friends. The houses were houses of refuge simply. They did not then as now receive the most earnest services of the leading physicians, but they were housed and cared for. During the almost pagan darkness of the middle ages the value of the hospitals was seriously impaired and in many cases they came near being charnel houses.

"But with the revival of learning they again began to fulfill their mission. The scope of the hospital has broadened. From being Houses of Refuge they have become institutions that have made possible the brilliant results of modern surgery and the triumphs of modern medicine. All institutions are but the index of the civilization which produces them. So we find with hospitals that for hundreds of years they were institutions not considered worthy of the name, but

times change; humanity sweeps onward, the race civilizes, and institutions, through darkness, through disappointment and many troubles, still struggle onward toward life.

"It is not necessary to enlarge upon the advantages the hospital affords to the physician and the surgeon, in the facility it gives for classification of cases. It is not necessary to expatiate upon the advantage which the student of medicine, under the professor, has of a turn in a hospital, where he may become used to the aspect of disease and learn the effect of his remedies. But one of the greatest benefits, it seems to me, which we now derive from the modern hospital comes to the community, not only in the education of the physician, but in the training of the nurse. We read in history of Sarah Gamp. We have heard about the ministering angel at the hour of sickness and distress. The hospital endows this ministering angel with a new quality. By knowledge and training gives her skill that increases the value of her service a hundred fold. And so as the years go by the scope of the hospital is changed and enlarged. It is no longer a house of refuge. The hospital must progress as the community progresses, until we cannot measure its influence. It largely rests with us, members of the medical profession, to do our part in this larger development of the future, until we come to the time when sickness is no more, and when sorrow and sighing shall flee away."

"BROWN UNIVERSITY"—RESPONDED TO BY PROF. H. C. BUMPUS.

"The President of Brown University has recently called together the graduates of the institution who are now practicing physicians, and has laid before them a scheme for the establishment of an undergraduate course of study designed especially for those who intend, on graduating, to enter the medical schools. The University, during the past few years, has shown remarkable growth both in attendance and in equipment, and is now able to offer courses in Botany, Chemistry, Anatomy, Physiology and Histology that are thought to be of immediate practical value to students whose interest lies in the before-mentioned lines. It is the wish of the officers of the institution that the members of the medical profession examine carefully into the details of these courses and that suggestions be given for the greater elaboration of any *one* or for the establishment of new lines of study.

"A formal organization of certain of the alumni of the University has now been established, under the name of the Brown University Medical Association, and it is hoped that with the endorsement and assistance of such a body the students of Brown may occupy a higher position in the medical schools and may finally graduate with a broader foundation, and with a better equipment throughout, than would otherwise be the case."

"OUR FRIENDS IN BOSTON"—RESPONDED TO BY DR. H. W. WILLIAMS, OF BOSTON.

"I believe I am the only representative of Massachusetts from the City of Boston. I desire to present in behalf of this older sister, who was a hundred years old a dozen years ago, their congratulations to this society upon its success and prosperity and upon its good work. I am, also, here to-day as one of your own members, a privileged member, and I congratulate you upon the porportions of your membership. I wish to offer the sympathy of all good fellows of our Massachusetts society, particularly, on the success which has attended the efforts of the Rhode Island society to protect the integrity of the profession from the inroad of the pretender, without the slightest knowledge of medical science. It is not professional jealousy, but it is one of the highest duties of the society to help and protect the community. The society should not cease its efforts nntil it has gained this point. Under the laws, the dentist is compelled to be examined before he can practice his profession, the pharmacist before he can dispense drugs, and *the physician should be*, before he is allowed to tamper with the lives of the community. A man who calls himself "Doctor" should be at least, required to register his name with the county clerk. That would be a point gained. It is not because the profession has a pecuniary interest in the passage of this law, for the imposter, probably, makes as much work for the regular practicioner as he takes away.

"I wish to emphasize, Mr. President, how much pleasure it has given me to listen to the annual papers and addresses, and to meet so many of my brethren once more, whom I have known for so many years, and those whom I should never have known but for their kindness in making me an honorary member of your society."

"THE CAREFUL PHYSICIAN AND PHARMACIST"—RESPONDED TO BY MR. EDMUND C. DANFORTH, SECRETARY OF STATE BOARD OF PHARMACY.

"Truth crushed to earth shall rise again;
The eternal years of God are hers;
But Error, wounded, writhes with pain,
And dies among his worshippers."—*Bryant.*

"I am pleased to be with you to-day, because I believe that the physician and the pharmacist should be brought into closer relations than they have been in the past. I believe that the careful physician goes a long way in his influence to produce a careful pharmacist. The pharmacist has a most excellent opportunity, through those little slips of paper, of studying the character, taste and habits of the physician. He can judge from these pieces of paper whether the physician who writes them is a man who wishes his prescription put up exactly as he states, whether they should go out in the best of style and put up as they

should be, or whether he does not care. We know in the way they are written, the care which is taken in elaborating the directions whether the physician has the care of his patient at heart, and whether he wants it of the very best and will not stand any imposition. I believe if the physicians would visit the druggist in their neighborhood, and bring themselves in closer relations with the pharmacist, it would accrue to the benefit of the pharmacist and of utility to the physician, and bring to his knowledge the fact that a great many preparations made by outside parties, who manufacture by wholesale, can be made to a better advantage by the competent pharmacist. It would also be to the advantage of the physician to know that he was not prescribing a pseudo quack medicine.

"As to the character of the men that the Board is registering as pharmacists, I would say in this connection, better, perhaps, by giving an illustration of a case that came before the Board not long ago. A young man came from a neighboring state for examination. He was confident of his success. He had passed an examination in another state with flying colors, and he felt confident of passing our Board, and we would have been glad to have him do so. Among the questions that we asked him, was about the composition of sub-nitrate of bismuth. How could he determine its purity and recognise it if he saw it? He did not know as he should be expected to know that. When he wanted sub-nitrate of bismuth he sent to the wholesale druggist and bought it, and when he had a prescription he took down the bottle and put it up. We asked him if he knew whether it was sub-nitrate of bismuth or subcarbonate. He did not know as he should be expected to know that. If it was put up and labelled so, he would have confidence that he had got it. And so on with other things. If we asked the composition of Rochelle salts how he would know it and other officinal preparations in their make up, he was not expected to know that, he would go by the label and the correct putting up of the wholesale house. The Rhode Island Board does not believe in passing such men.

"We want to pass men who will know what they are putting up and have the best preparations. I had at one time a prescription brought to me by a patient. The piece of paper showed the usual sign ℞ in the corner, reading A. B. P. ×. I looked it over and was supposed to know that it was 'Anti-Bilious Pills, No. ×,' and no directions."

A lady in distress wrote the following urgent note to her physician: "Dear Doctor, please call at once, and bring your urethra with you." He took a catheter.

ANTISEPTICS AND DISINFECTANTS.

READ BEFORE THE PROVIDENCE MEDICAL ASSOCIATION BY W. W. HUNT, M. D.

IN writing this paper I have endeavored to look up some of our newer antiseptics and disinfectants and whatever there might be new of the older ones. I hope you will pardon me if it is dry and uninteresting. I have been unable to find as much time to read as I should have wished, and many things which I should like to have looked into more fully, I have been forced to pass over but superficially.

The first antiseptic to which I shall call your attention is:

ALUMNOL.

It is a sulphur salt of aluminum. This salt is a fine white non-hygroscopic powder easily soluble in cold water. Solutions of 40 per cent. and over made with hot water remain without precipitation upon cooling. It is acid in reaction. It precipitates albumen but differs from other astringents in that the resulting precipitate is again dissolved in the excess of albumen, thus it will act deep in the tissues. A one per cent. solution after 24 hours kills the bacilli and spores of anthrax, pyocyaneus and prodigiosus. It is of greater power to check the growth of bacilli. 4-10 of 1 per cent. solution can absolutely prevent their growth.

The astringent action can be seen on mesentery of a frog in solution of from 1-100 to 1 per cent.

In suppurative surfaces and wound cavities suppuration is promptly checked when used in solution of from 1-2 to 2 per cent.

In small abscesses and fistulous tracts 10 to 20 per cent. solution produces a caustic effect with rapid cleaning and healing.

In gonorrhœa in men according to Chotzen, a 1 to 2 per cent. aqueous solution injected three to four times daily causes gonococci to disappear in three to six days. To avoid irritation the strength of the solution must then be diminished.

ASEPTOL,

is the name given to a sulphonic-derivative of carbolic acid produced by mixing in the cold equal parts of sulphuric and carbolic acids. It is a thick reddish liquid quite volatile and quite soluble in water. It is less caustic and more antiseptic than carbolic acid, but it has not supplanted it in general use. Diaphtherin or oxychin aseptol is a combination of 2 parts oxychinol and one aseptol, and is a new antiseptic. Comparative bacteriological experiments show its superiority over lysol, carbolic acid or phenol. Soluble in both cold and warm water. It has

been used in 30 to 50 per cent. solutions. The solution usually employed is a 1 per cent. solution. It is not caustic and does not give rise to eczema. The testimony is favorable to the possession of marked antiseptic properties with no marked disadvantages. It tarnishes instruments, nickel included. Stains the hand a yellow color but is easily washed off.

ASAPROL,

a compound of β naphthol and mono-sulphate of calcium.

About one-half the amount injected is eliminated in the urine. It has been used in acute articular rheumatism, can be administered in sufficient dose without harm to the patient. Its action is quite as rapid as that of the salicylates and relief is well marked and usually upon the same day and on the average, cure results on the eighth day. It is as good as the salicylates and in some respects is better. There are no aural symptoms, no nausea and vomiting. It is efficient in half the dose of the salicylates. Its method of administration is 30 grains on the first day, 45 grains on the second, and 60 grains the third, and this dose can be given for several weeks if necessary.

It has had considerable use abroad in the treatment of influenza, some observers claiming that it relieves the pain more quickly than antipyrine or quinine. It is incompatible with alkalies, sulphates, and most saline salts.

ARISTOL

still holds about the same position; it has not supplanted iodoform as a surgical dressing. It is employed mostly by the Rhinologists and Dermatologists among whom it has quite an extended use. I do not find much that is new in the literature of this drug.

BENZOL

or English benzene, has been used in England in the treatment of pertussis and influenza with reported good success. It has been found effectual in destroying "Pediculus Capitis and Pubis," a single application as a rule is sufficient. Fire should be avoided.

CARBOLIC ACID.

In speaking of this drug the later journals tell us that Lister has lately claimed that it is the best antiseptic. He does not believe in the spray nor does he believe that irrigation of the wound is necessary while operating. *Carbolic acid*, he claims, is quite sufficient to kill the germs which are inimical to the success of surgical operations.

He believes it only necessary to prevent the entrance into wounds of

such micro-organisms as would be found upon dirty sponges, instruments or hands, or whatever came in contact with the wound.

The surrounding skin he would cleanse with a 1-20 solution of carbolic acid, and the site of operation need not be cleansed before the administration of the anæsthetic. The solution of the same strength is used to cleanse the operator's hands. This I think is rather hard upon the operator.

The instruments are immersed in a 1-20 solution of carbolic acid, the length of time that they remain in the solution depends entirely upon how thorough the previous cleansing has been. If they have been properly cleansed it is sufficient if they are immersed while the anæsthetic is being administered.

Sponges are washed first with soap and water, afterwards with soda, then thoroughly rinsed with water, and after drying are placed in carbolic solution 1-20.

They are washed during the operation in 1-40 carbolic solution. The field of operation should be surrounded with towels wrung out in some trustworthy antiseptic solution; at the conclusion of the operation the wound may be gently washed with a 1-40 solution. The greatest objection to the use of carbolic acid as Lister uses it is in the effect upon the hands of the operator.

My experience with 1-20 solutions of carbolic would lead me to think that one who used it very frequently would rather dislike the looks and appearance of his hands. A careful cleansing of the hands with soap and hot water and rinsing them with bichloride would be much pleasanter and just as efficient.

DERMATOL, OR BISMUTH SUB-GALLATE.

One of the recent substitutes for iodoform has not supplanted its rival. It has been used more largely in dermatological practice than in surgery. Its antiseptic proprieties are somewhat in dispute but its dessicating effect is still pronounced and remarked favorably upon by all. It has active powers in hindering bacterial growth though it does not have bacterial action. It has been used with good success in the treatment of burns.

EUROPHEN

is a stable iodine compound which under the influence of certain conditions and especially when exposed to the action of fluids, both normal and pathological of the organism, slowly liberates free iodine. It contains 27.6 per cent of iodine. It has a faint and pleasant aromatic odor, easily disguised if necessary. It is easily soluble in alcohol and ether and mixes well with fats, oils, lanoline and flexible collodion. It is insoluble in glycerine and water and must not be used in the presence

of starch on account of the iodine set free. Europhen is bactericidal in the same way that iodoform is, it renders the medicine in which it is present unsuitable for the growth of microbes. *Siebel* has proved that the two powders are about equal in strength. It has the following advantages over iodoform: It is almost odorless; it is non poisonous; it is one fifth of the weight of iodoform and can therefore be made to spread over a much larger area. It does not tend to cake. It has been employed in ulcerative nasal and laryngeal diseases and in ulcerative syphilitic and chancroidal affections. It has been largely used in cutaneous affections. It has been used as a dressing for wounds but it has not supplanted iodoform in spite of the unpleasant odor of the latter drug.

HYDROGEN PER-OXIDE.

Probably this antiseptic has grown more in favor during the past year than any of the newer antiseptics. New uses are being found for it every day, and very few are disappointed in its results, if properly applied. As an agent to cleanse foul wounds and purulent sinuses it is unsurpassed when used in full strength. There is little or no pain attendant upon its use if free exit is provided for the resulting foam. It will cleanse a sinus from pus if sufficient time is given for it to reach the remote parts.

In the treatment of carbuncle several observers have reported good results by injecting it into the substance of the carbuncle. It softens up the suppurating mass and the sloughs separate more easily.

It has been reported to give good results in the treatment of gonorrhœa in its early stages. A full strength solution is usually employed. It does not give as good results if used in the later stage.

It has been recommended as a disinfectant of polluted water. One part to one thousand of water containing sewage or infectious microbes is sufficient to destroy the various microbes, if left to act twenty-four hours.

Used in drinking water, it does not make it impotable. The cost is inappreciable. ʒss to four gallons of water makes a solution of one to one thousand, and this costs very little.

IODOFORM

has lost but little during the past year in spite of the numerous remedies which have been introduced as substitutes for it. Its remarkably good results are so pronounced that its disagreeable odor, its only objection, is simply endured. The laity have become well acquainted with its odor and name and the good results which follow upon its use. It is by no means uncommon to hear a dispensary patient call it by name and ask for some that he may treat himself. Its action is so

beneficial that the majority are quite willing to put up with its odor for the good results which attend upon its use. It is in private practice among the more æsthetic patients that we long for a less pronounced odor.

A number of agents have been brought forward to disguise its odor. Among them may be mentioned *cumarin*, the active constituent of tonka-bean, which is recommended as almost entirely disguising the odor, and for rendering it more agreeable as well, by its own aromatic odor.

Iodoform has been used in the treatment of tubercular joint affections by parenchymatous or intra-articular injection of an emulsion of the drug. Good results are said to follow this treatment.

ICHTHYOL

has held its own and gained in some respects. It is claimed by some to be almost a specific in the treatment of erysipelas. It is used in 25 to 50 per cent. ointment with lanoline. It has a large use in eczema and all forms of rheumatism.

It has been used in the treatment of uterine complaints including metritis, parametritis and ovaritis.

LYSOL.

This preparation is made by dissolving fat subsequently saponifying with the addition of alcohol and the fraction of tar oil which boils between 190° and 200° C. It is a brown, oily looking, clear liquid with a feebly aromatic, creosote-like odor, miscible with water, forming a clear, saponaceous, frothing liquid, also with petroleum spirit or benzene, chloroform, carbon di-sulphide and glycerine.

Experiments have shown lysol to be five times stronger than carbolic acid and eight times less poisonous. It does not attack the operators' hands but renders them soft and supple. In surgical use it has no great advantage over the antiseptics which are in more general use. To be really efficacious it has to be employed in solutions almost caustic or irritating. It is likely to be particularly useful in disinfecting premises, privies, ships and stables.

BENZOL PSEUDO TROPEIN.

Tropacocaine is an alkaloid derived from the small leaved cocoa. It is less toxic than cocaine, the dose is smaller, it is more rapid in its effect, the anæsthesia lasts longer. There is no ischæmia, in some cases there has been slight hyperœmia. There is no mydriasis. The solution keeps better than that of cocaine. The hydrochlorate is the salt usually employed. It is less than half as toxic as cocaine. Its depressing effect upon cardiac motor ganglia and the heart muscles is much less. A half of one per cent. solution causes marked diminution of cutaneous reflex sensibility.

MEDICAL JURISPRUDENCE.

MEDICAL LAW FOR KENTUCKY.

WE append herewith a copy of the new law "Regulating the Practice of Medicine in Kentucky."

While we congratulate the good citizens of Kentucky, and the physicians of that state as well, on the passage of so good a law, we cannot but blush with shame for our native state. Time and again have the physicians of Rhode Island asked our legislature for some such a law; we have come to them asking for the law in behalf of the profession, and have been met with the objection that it was *class legislation*, and not called for by the people; they have been appealed to by the people with petitions signed by from five to six thousand of the best citizens of the state, and these petitioners have been refused on the ground that it was *class legislation*, and not called for by the profession, who should be most interested in the matter.

We are glad that the legislators of Kentucky give heed to the voices of her medical men, and have enacted a law that will protect her people from the intrigues of dishonest practitioners and quacks, and have done their part in the laudable effort to make the practice of medicine a respectable calling; still it is none the less humiliating to know that scholarly attainments and respectability are at a discount, and not deemed worthy of consideration by the Legislature of Rhode Island.

Be it enacted by the General Assembly of the Commonwealth of Kentucky:

Section 1. It shall be the duty of the county clerk of each county to purchase a book of suitable size, to be known as the "Medical Register" of the county, and to set apart one full page for the registration of each physician; and when any physician shall die or remove from the county, he shall make a note of the same at the bottom of the page; and said clerk shall, on the first day of January in each year, transmit to the office of the State Board of Health a duly certified list of the physicians of said county registered under this law, together with such other information as is hereinafter required, and perform such other duties as are required by this law; and such clerk shall receive the sum of fifty cents from each physician so registered, which shall be his full compensation for all the duties required under this law.

Section 2. It shall be unlawful for any person to practice medicine in any of its branches, within the limits of this State, who has not exhibited and registered in the county clerk's office of the county in which he resides his authority for so practicing medicine as herein prescribed, together with his age, address, place of birth, and the school or system of medicine to which he proposes to belong; and the person so registering shall subscribe and verify by oath, before such clerk, an affidavit containing such facts, which, if willfully false, shall subject the affiant to conviction and punishment for perjury.

Section 3. Authority to practice medicine under this law shall be a certificate from the State Board of Health, and said Board shall, upon application, issue a certificate to any reputable physician who is practicing, or who desires to begin the practice of medicine in this State, who possesses any of the following qualifications: First. A diploma from a reputable medical college legally chartered under the laws of this State. Second. A diploma from a reputable and legally chartered medical college of some other State or country, endorsed as such by the State Board of Health. Third. Satisfactory evidence from the person claiming the same that such person was reputably and honorably engaged in the practice of medicine in this State prior to February twenty-third, one thousand eight hundred and sixty-four. Applicants may present their credentials by mail or proxy, and the Board shall issue its certificates to such applicants as are entitled thereto as though the applicant was present. All certificates shall be signed by the president and secretary, and attested by the seal of the Board, and not more than two dollars shall be charged for any certificate.

Section 4. Nothing in this law shall be so construed as to authorize any itinerant doctor to register or to practice medicine in any county in this State.

Section 5. The State Board of Health may refuse to issue the certificate, provided for in section three of this article, to any individual guilty of grossly unprofessional conduct of a character likely to deceive or defraud the public, and it may, after due notice and hearing, revoke such certificates for like cause. In all cases of refusal or revocation, the applicant may appeal to the Governor, who may affirm or overrule the decision of the Board, and this decision shall be final.

Section 6. Nothing in this law shall be so construed as to discriminate against any particular school or system of medicine, or to prohibit women from practicing midwifery, or to prohibit gratuitous services in cases of emergency; nor shall this law apply to commissioned surgeons of the United States Army, Navy or Marine-Hospital Service, or to legally qualified physicians of another State, called to see a particular case or family, but who does not open an office or appoint any place in this State where he or she may meet patients or receive calls.

Section 7. It shall be the duty of the State and local Boards of Health to bring to the attention of the courts any violations of the provisions of the law within their respective jurisdictions.

Section 8. Any person living in this State, or any person coming into this State, who shall practice medicine, or attempt to practice medicine in any of its branches, or who shall perform, or attempt to perform, any surgical operation for or upon any person within the limits of this State, for reward or compensation, in violation of the provisions of this law, shall, upon conviction thereof, be fined fifty dollars, and upon each and every subsequent conviction shall be fined one hundred dollars and imprisoned thirty days, or either or both, in the discretion of the jury; and in no case, where any provision of this law has been violated, shall the person so violating be entitled to receive compensation for services rendered. To open an office for such purpose, or to announce to the public in any other way a readiness to practice medicine in any county, shall be to engage in the practice of medicine within the meaning of this law.

Approved April 10, 1893.

Medical Student—Do you know, Miss Fannie, that the action of the human heart is sufficiently strong to lift every 24 hours 120 pounds?

She (blushing)—Really? Why, that's just my weight.—Tit-Bits.

CHOLERA ASIATICA; ITS HISTORY, ETIOLOGY, PREVENTION AND TREATMENT.

AN ADDRESS DELIVERED BEFORE THE WINDHAM COUNTY MEDICAL SOCIETY, CONN., AT ITS 100th ANNIVERSARY, MAY 11th, 1893.

By J. FREDERICK HALLER, A. B., M. D.

[CONTINUED FROM THE MAY NUMBER.]

SYMPTOMS AND TREATMENT.

IF we think of the time honored division of cholerine into three stages for the sake of convenience, we have :

(1) *Invasion*, (or the local infection with light diarrhœa).

(2) *Cholera algida*, *asphyctica*, (vomiting, rise-water stools, dehydration of the body and the progressive intoxication of the poisonous products which cannot be removed from the tissues and the blood) and finally

(3) *The reaction* (or a return to health), our indications for treatment are distinct and clear. Treatment is as important in the invasive diarrhœa as later, for the comma bacilli are here present in large quantities and as the patient is able to go about, and may use the common water closet, much mischief may be done by neglecting it at this stage.

As far back as *F. Niemeyer's* observations in 1849 and 1861, it has been conceded that at first, the rapidly increasing comma bacilli cause only a local inflammatory irritation of the mucous membrane of the intestines with profuse exudation. Normal gastric juice gives a certain immunity against cholerine, and observations have taught us that the disease appears usually after digestive disturbances, and in people who live on poor food and use liquors to excess, or have chronic diseases of the digestive apparatus.

After the bacilli have gained access to the system, in spite of all precautions, treatment should at once be instituted; the sooner the better. As soon as diarrhœa appears in a locality where cholerine might be expected, the patients should go to bed and send for a physician immediately. Turpentine or other warming and lightly irritating applications to the abdomen are good, with a cup of warm tea, with some brandy, rum or red-wine to drink. Nothing should be partaken of except thin oatmeal gruel and carbonated (not alkaline) waters for thirst, with or without ice. *Opium*, which has been our standard remedy in the past, in all diarrhœas, has rather lost ground from the many voices that have

spoken against its early and persistent use, but as cholerine develops from a prodromal diarrhœa and often can be cut short here,*
it would seem that opium, together with some ethereal oils, is, after all, as useful as it ever was. Just how opium acts is not quite clear. It has no antiseptic properties, and we must either assume that it stops the exudation in the intestines, and thus robs the comma bacilli of the nutriment necessary for their propagation and growth, (*Warfvinge in Hygeia, Stockholm, Sept. 1892,*) or else we must believe with *Cantani* that by its stopping peristalsis and thus diminishing the diarrhœa, the comma bacilli are arrested in the upper part of the digestive apparatus and there killed by the acid ferments.

While we cannot precisely explain its mode of action in this disease, we cannot very well get along without it, particularly in cholerine times, and it should then be found in every household, with suitable directions. It is at any rate quieting and useful in sudden attacks of the sickness.

Calomel is highly recommended by *Niemeyer*, *v. Ziemssen* and others. They speak of its useful and harmless qualities in inflammatory infectious conditions of the intestines, and recommend a few large doses, 2 or 3 doses of O. 5 grm. (8 grains) an hour between each, and afterwards smaller doses of 5 c grm. (3-4 gr.) every other hour.

The fact that some of the calomel in the intestine is broken up into corrosive sublimate, is spoken of as giving it particular advantages over other drugs to cut the disease short.

Others have given *subnitrate of bismuth* in continued doses of O. 5 to 1 drm. (8 to 15 grs.) or from 8 to 12 drms. (3ii to 3iii) during the day.

Salicylate of bismuth would, however, give better satisfaction, as this is broken up into oxide of bismuth and salicylic acid in the intestines.

Salol acts in a similar way. Emetics and cathartics have been given, with a view to carrying off the poison, but they have proven to be too irritating to the mucous membrane. To render the stomach and the upper part of the intestines acid by administering hydrochloric or sulphuric acids, either the aromatic or dilute, is a favorite practice with many, and is very grateful to the patient in the beginning of the disease.

Carbonic acid in carbonated waters, champagne, beer and wine, are also intended to quench the thirst and counteract vomiting, not only in the beginning of the disease but also in all the stages. The hydrotherapeutical treatment is also important. Often the premonitory diarrhœa can be checked by the use of the above mentioned remedies. The most important and satisfactory treatment in severe vomiting and diar-

**W. Gull* among others, in speaking of the cholera epidemic in England in 1849, mentions 13,089 cases of diarrhœa which were treated early, and only 27 of these developed into true cholera.

rhœa is, however, *Cantani's warm water* and *tannin* injections into the intestines (enteroclysis.) All that is needed for this treatment is a soft rubber tube or catheter, a funnel and some warm water about blood heat 100°F to 110°F. In 2 to 3 quarts of water 5–10–20 grams of tannin is dissolved (or about 75–150–300 grains), which is injected into the bowels several times daily.

Cantani recommends this treatment early in the disease and claims for it the following advantages: The warm water alone is thermically stimulating to the intestines and the whole organism; it increases resorption whereby the inspissation of the blood and the urœmia is prevented, or successfully averted if already present.

Cantani observed that secretion from the kidneys became re-established a few hours after enteroclysis. He also thinks that the tannin sterilizes the contents of the intestines and that it combines with the toxines, producing a tannin combination which is quite insoluble, and finally he believes that tannin from its strong astringent properties diminishes the exudation from the intestinal mucous membrane. He asserts, positively, that these injections pass through the ilco-cœcal valves into the smaller intestines, even into the stomach sometimes, as he has observed tannin like fluid being ejected in the vomited matter, and with a stomach pump he has found it present in the stomach after rectal injections. *Cantani* thinks it quite possible, that chlorine-water, corrosive sublimate, salicylic acid, etc., would have even more sterilizing effect, but continues to use tannin, as it has given him such excellent results.

Cantani and other Italian physicians are quite enthusiastic over this treatment and it is strongly recommended all over Europe in the beginning of the disease. The same may be said of *hypodermoclysis* which was described in the March number of the Monthly.

Cantani sterilized comma bacilli by subjecting them to a heat of 100° C (212°F) and afterwards injected them into the peritoneum in dogs.

The characteristic symptoms of the algid stage were produced in a light form which would prove that the bacilli produce poisonous substances, as has been affirmed by the experiments made by *Brieger*, *Nicati* and *Rietsch*, who isolated poisonous toxines from comma bacilli cultures. If tannin was added to such cultures, the toxic symptoms did not appear, when thus injected. This would positively prove that tannin renders the ptomanies of the bacilli harmless.

For the painful cramp in the calfs brisk rubbing is used and *v. Ziemssen* recommends to rub them with large pieces of ice. Even if persons recover from cholerine, they are often left in a typhoid condition, a severe fever, which *Rossbach* thinks depends upon changes in the blood during the algid stage.

The temperature is extremely high, exanthematous eruptions appear

on the skin, the pulse is rapid, or there may be uremic symptoms: headache, lassitude, somnolence, sometimes delirium, diminished pulse-rate and normal temperature, vomiting, a glue-like, urine-smelling, cold perspiration, and death often ensues, seldom with convulsions. Infarctions in the lungs may appear, diphtheria in the intestines, throat or bladder; pneumonia, parotitis, erysipelas and methastatic abcesses. All these conditions are probably the results of the enormous changes produced by the disease.—*Edgren in Hygeia, Stockholm, Sept., '92.*

In such cases no routine treatment can be followed, but each case must be treated according to the most prominent symptoms. *Cantani* recommends that even if the patient has gone into the latter part of the algid stage, tannin injection into the rectum and salt water injections into the veins direct or into the cellular tissue (*see the Monthly for March, '93*) should be used, for they may prevent the uremia and the typhoid condition.

In the typhoid condition, following an attack of cholerine, the treatment should be symptomatic.

For the uremic symptoms, warm baths followed by hot pack are recommended with a milk diet.

We have, as yet, no specifics for cholerine, but a rational treatment must be instituted early and persistently followed.

It is well to remember that cholerine diarrhœa begins, as a rule without cramp-like pains, but just before each evacuation there is a more or less cramp-like sensation near the navel and the characteristic forcibly ejected watery, later grayish stools. The diarrhœa is profuse, followed by vomiting, icy feelings going from the feet upward, pinched, grayish face, great anxiety, cramp-like pains in the calf of the leg which extend over the whole body.

Those who are very enthusiastic about giving dilute sulphuric acid should remember that it spoils the teeth, especially when vomited up, and patients so treated will probably have to get artificial teeth. All alkali and alkaline waters should be carefully avoided. Milk and beef-tea must not be used during the progress of the disease.

PRESCRIPTIONS BY LEADING AUTHORITIES.

Camphora Rubini—made by dissolving camphor in an equal quantity alcohol. 5-10 to 15 drops on sugar every one-quarter, one-half or whole hour, till the diarrhœa stops.

℞ Quin. sulph. . . . . gr. 15
Acid phosphoric dil., ... gr. 22
Aquæ dest., ... ℥ii ℥iii
Syrup, ... ℥vi
Spirit vini. rect., ... ℥iii
M. D. S. All at once or one-half. *Grundal. Ph. Svecia.*

Hypodermically—caffeine, camphor 1 in 10 parts, or phosphorus 1 in 1,000 dissolved in ether.

Internally—Arsenite of copper 1 : 1000, 2 drops every ten or 15 minutes till the effect is had, or phosphorus 1 : 1000.

As a cooling drink is recommended:

℞ Tinc. citric. . . . . ʒss
Acid lactic, ... ʒiiss
Syrup sacchar. . . . . ʒiii
Solve in 3 pints of water. *Tengwall. Ph. Svecia.*

Dr. A. A. Volansky, Ural, Russia, (*Transactions of the Ural Med. Society, 1893,*) treated 375 cases, in the following manner:

First 10 grains of calomel, repeated once or twice; afterwards:

℞ Tr. opii simplicis, (*Ph. Ross.*)
Tr. nucis vomicæ
Tr. menth. pip. áná.
M. D. S. 15 to 18 drops, thrice daily to an adult.

One hundred and twenty-five of these cases were registered; fifty-two deaths. Two hundred and fifty cases were not registered and all recovered.

Prof. Hueppe, of Hamburg, places tribromphenol-bismuth, 76 to 100 grains daily, in doses of 8 to 15 grains, above all other remedies, even calomel. He says it neutralizes the poison, protects the intestinal mucous membrane and the kidneys were less affected in cases so treated.

Sir George Johnson, M. D., F. R. S., England, (*Treat's Med. Annual,*) recommends castor oil, "to sweep the morbid secretions from the intestine." If this cannot be retained, rhubarb is administered with or without calomel.

F. Reiche, M. D., Hamburg, (*Treats Med. Annual,*) tried with varied success salicylic acid, pyoktanin, tannic acid, bismuth, salol and calomel, after a previous dose of castor oil. Calomel was the only drug which held its own. Salol in this author's opinion, *per orem* or subcutaneously in ethereal solution, showed no appreciable results.

Cantani's hot water and tannin injections into the rectum, intravenous hot water and salt injections (*Hayem*), or intra arterial injections of the same fluid recommended by *Landois* and our own *Dawbarn of New York*, in enormously increased quantities, together with the free use of oil of camphor, subcutaneously as an excitant, proved, however, in this author's experience to be the only assured remedy in most cases.

Some cases were much improved by the addition (to the injections) of diaphoretic baths. For vomiting, cocaine and chloroform were beneficial, also small doses of morphine.

Among the directions published under the auspices of the Russian

government for general distribution during the epidemic of 1892 were the following:

Upon the first appearance of choleraic diarrhœa, (symptoms described), give castor oil, one or two tablespoonfuls for adult.* If no castor oil is found, give same quantity of salad or linseed oil, slightly warmed. Put patient to bed to produce perspiration. Give hot tea, mint or camomile in as large quantities as the patient can take. Use hot fomentations to abdomen and feet, such as hot salt or oats rolled in a towel or napkin; or hearth stones, plates, bottles or jugs with hot water or hot bricks, rolled in napkins or towels.

If the patient does not improve, give anti-cholera drops of *Batkin*, which have the following composition:

℞ Liq. anod. Hoffmanni
Tr. cinchon. comp. . . . . ää ℥i
Quin. muriat. . . . . ℥i
Acid muriat. dil. . . . . ℥iss
Ol. menth. pip. qs.

M. D. S. 20 or 30 drops diluted every half hour till diarrhœa ceases. For cramps, rub with brushes or apply heat. For vomiting, ice. Give 15 to 20 drops camphorated oil every 10 minutes or 1-4 of an hour, with or without a tablespoonful of hot water till patient becomes warm, and diarrhœa lessens.

Prof. Rumpf, Berlin, tried peroxide of hydrogen in 1:1,000 solution; quantity injected 1 3-4 to 2 1-2 pints for intra venous or intra arterial injections.

The immediate results were surprising, but often of short duration. A great number of patients were saved by this means and this alone. Among American writers *Dr. Frank Abbot, Jr.*, Deputy Health Officer, etc., of New York City, reports his observations in the treatment of cholera made at Swinburne Island, N. Y., Sept. and Oct., 1892, in the *Medical Record.*

He speaks most favorably of *Cantani's* hot water and tannin injections, two ounces of tannin dissolved in one gallon of water (sterilized), injected into the colon by means of a flexible catheter not less than two feet in length. Pressure should be regulated by placing a fountain syringe four or five feet above patient. Quantity to be injected, one quart to one gallon in adults, repeated as often as necessary; children in proportion. He speaks favorably of 10 to 30 grains of calomel before vomiting has begun and intracellular, venous and arterial injections of salt and hot water. The strength used is 7 parts of salt in 1000 parts of sterilized water, or (sodium chloride ℥ij, water ℥xxxij,) with addition of 10 parts of brandy or six parts of alcohol in extreme debility. He recommends to heat the water to 98.4° F. (37°C) but we think *Dawbarn, of New York*, and others will agree with us, that the water should be heated to 115°F or 118°F. Dr. Abbot continues:

*This treatment of castor oil was later condemned by eminent physicians of St. Petersburg.

"Hypodermoclysis and enteroclysis must be continued until the temperature of the body and the action of the heart show an improvement in the case. Hot-air baths are most beneficial to maintain the temperature of the body. If the symptoms of asphyxia are persistent, notwithstanding the above treatment, inhalations of oxygen under certain circumstances have been of great benefit in cases which seemed almost hopeless. Cramps, which are the most distressing symptom during the attack in its advanced stages, are relieved by the combined action of the hot-air baths and massage.

"During the third, or reactionary stage, which differs according to the severity of the attack, the nutrition of the patient should be the principal aim of the physician; to re-establish the impaired action of the kidneys and build up the system gradually, a careful diet should be given, avoiding everything that requires much effort in the way of digestion, thus protecting the alimentary tract from irritation. Seltzer water with milk, carbonated beverages, champagne in moderate doses, maltine with cod-liver oil in weak children, maltine with peptones in older persons, will be found beneficial. The latter is the best substitute for a combined meat and cereal diet, and is easily assimilated.

"The convalescence after cholera is long and tedious, and fraught with much danger to the patient on account of the lesions left in the intestinal tract. Notwithstanding the apparent good condition of the patients after leaving their beds, they are very debilitated, and the least excess or error in diet may give rise to serious complications. Duodenal digestion is always very poor in these cases, and foods which require little digestion in the small intestine should be adhered to for some time, and here maltine preparations have proved exceedingly useful. As to the prophylactic treatment, only brief mention is necessary. Isolation of the patients and thorough disinfection of their clothes and dejections are the best means of avoiding the disease. It should not be overlooked that water for drinking purposes, and all foods, should be recently boiled or cooked before being used, and it is highly important that the physician see that in his families these precautions are observed. All cases of indigestion should be promptly treated, the system of delicate persons built up as far as possible, and any errors of diet corrected. Delicate children with poor digestion and weak assimilative powers derive great benefit and are rapidly built up by the free use of maltine with cod-liver oil.

"The results of the above treatment were practically demonstrated in the last imported epidemic of Asiatic cholera at the quarantine station. In most of the steamers which brought the cholera patients over, the death rate on board reached over ninety per cent. of the total number of sick, while at Swinburne Island the percentage of death was reduced to twenty per cent."—*The Medical Record.*

Dr. John H. Hollister of Chicago, read a paper before the Section in Medicine, of the American Medical Association at Milwaukee, June 6-10, 1893, on the treatment of cholera. Nothing new from what has been mentioned in this article was brought out, except that the author thought there was a great future in store for anti-choleraic vaccination.

SOME MORE FAVORITE DIARRHŒA PRESCRIPTIONS.

℞ Œther spir. camph.,
Tinc. valerianæ aa. . . . . grm. v;
Vin. opii cocat. . . . . grm. j;
Œtherol. menth. pip, ... guttas v;
M. D. S. 25 drops pro dosi.—*Ph. Svecia. Kjerner.*

℞ Tinc. theb. benzoic. . . . . grm. 10, 0;
Vin. theb. crocatœ, ... grm. 5, 0;—*Ph. Germ.*
M. D. S. 9 to 15 drops several times daily.—*Lebert.*

℞ Tinc. thebaic.
Œther. spir. camph. aa partes.
6 to 10 drops per dose.—*Lebert. Ph. Germ.*

Liebermeister speaks of *Lorenz's* cholera mixture:

℞ Vin. theb. crocat. . . . . grm. 6, 0;
Vin. ipecac. . . . . grm. 4, 0;
Tinc. valerian. . . . . grm. 12, 0;
Œtherol. menth. pip. . . . grm. 1, 0;
M. D. S. 15 to 25 drops every one-half hour.

Dr. Strümpell's:

℞ Tinc. theb. simplex, ... grm. 1;
Vin. ipecac. . . . . grm. 3, 0;
Tinc. valerian, ... grm. 10, 0;
Œltherol. menth. pip. gtts. 5;
M. D. S. 20 to 30 drops pro dosi. All from *Ph. Germ.*

AMERICAN DIARRHŒA MIXTURES.

The National Formulary Diarrhœa Mixtures are made as follows:

1. Tincture of opium,
Tincture of capsicum,
Tincture of rhubarb,
Spirit of camphor,
Spirit of peppermint, each . . . equal volumes.
Mix them, and filter.

The formula above given, which appears to be that in most general use, is also known under the name of "Sun Mixture."

Of other similar preparations, in more or less general use, the following may be mentioned here:

2. Loomis' Diarrhœa Mixture:
Tincture of opium, ... 1-2 fluid ounce.
Tincture of rhubard, ... 1-2 fluid ounce.
Compound tincture of catechu (U.S. P.) 1 fluid ounce.
Oil of sassafras, ... 20 minims.
Compound tincture of lavender, enough
to make . . . . . 4 fluid ounces.

3. Squibbs' Diarrhœa Mixture:
Tincture of opium, ... 1 fluid ounce.
Tincture of capsicum, ... 1 fluid ounce.
Spirit of camphor, ... 1 fluid ounce.
Purified chloroform, ... 180 minims.
Alcohol, enough to make, ... 5 fluid ounces.

4. Thielemann's Diarrhœa Mixture:

Wine of opium,	1 fluid ounce.
Tincture of valerian,	1 1-2 fluid ounces.
Ether,	1-2 fluid ounce.
Oil of peppermint,	60 minims.
Fluid extract of ipecac.	15 minims.
Alcohol, enough to make	4 fluid ounces.

This preparation is practically identical with the Mistura Thielemanni of the Swedish Pharmacopœia.

5. Velpeau's Diarrhœa Mixture:

Tincture of opium,	
Compound tincture of catechu (U. S. P.),	
Spirit of camphor, each	equal volumes.

English Diarrhœa Mixture:

℞ Argenti nitratis, ... gr. 1-4 to 1-2;
Aquæ dist. . . . . ℥ii;
Pulv. acaciœ, ... ℈ii;
Sach. albi., ... ℈ii;
M. D. S. ℥j or ℥ij every 2 hours.—*Constatt.*

The writer would suggest an old formula somewhat changed, which is almost specific in diarrhœal disturbances of the alimentary canal, and has been used with better success by the author than any other combination:

℞ Tinc. opii. deod.
Tinc. rhei.
Tinc. lavend. comp. aa . . . . . ℥i;
Tinc. capsic.
Tinc. camph. aa . . . . . ℥ij;
Chloroform. . . . . ℥ij;
Ol. cinnam.
Ol. menth. virid. aa . . . . . ℥ss;
Spir. vin. gallici,. . . . . ℥iv.
M. D. S. ℥ss to ℥i at a dose, repeated in two or three hours if necessary.

We reproduce from the excellent article of *Dr. Walter Reed, U. S. A.* in the *Northwestern Lancet* for May 1, 1893, the following:

Uffelmann has tested the vitality of cholera dejecta when spread upon various articles of diet, afterwards making cultures at short intervals. In ordinary, non-sterilized water they live 5 or 6 days; in milk, 3 days; on the surface of bread, exposed to air, 1 day; between moist slices of bread, 8 days; on butter, 3 days; cooked meat kept moist, 8; apples, 4; cauliflower, 4; paper, 1 1-2; dry clothing, 4; moist, 12; dry skin of hand, 1 hour. He rightly concludes that their vitality depends upon the amount of moisture present.

Numerous experiments have been made to determine their resistance to various chemical agents. The results as reported by Boer in Koch's laboratory show that they are killed by a two hours' exposure to the following:

Sulphuric acid	1-1300
Silver nitrate	1-4000
Carbolic acid	1-400
Creolin	1-400
Sulphate of copper	1-500
Bichloride of mercury	1-10,000.

"*How shall we ascertain the presence of this organism in a suspected case?* A small quantity of the dejecta (preferably a flake from a rice-water stool) should be added to nutrient meat infusion of standard strength and to bouillon diluted 10 times. These should be placed in the thermostat at 37° C. Another part of the dejecta should be used in preparing gelatine plates which should be kept, if possible, at a temperature of 22° C. A piece of linen may be spread with another portion of the dejecta and kept moist at room temperature for 24 hours. In addition to the characteristic growth of the colonies on gelatine plates, the test for the so-called red or indol reaction should be tried with the peptone cultures. Bujwid and Dunham have discovered that if a small quantity of chemically pure sulphuric acid is added to a bouillon or nutrient gelatine culture of the cholera spirillum, there quickly appears a reddish violet or purplish red color. The test serves to distinguish them from the ordinary bacteria of the intestines. By resorting to these means the diagnosis should be established in about 48 hours."

Dr. J. K. Patterson has great faith in clean linen. He looks for cholera in this country before the summer season is over. The doctor reminds the public that the cholera germs are poisonous plants, and may be as thoroughly eradicated as any weed that grows in a farmer's pasture. The cleanly and the temperate need not fear even contact with those afflicted with cholera.

"Bake or boil your cholera germs,
Cook, at least a minute;
Boil your water, likewise milk,
Poison may be in it.

* * * * * *

Eat no food, too stale or raw,
Serve it, fresh and hot;
Germs succumb to heat alone—
Send them all to pot."

I feel that I have only given a partial and somewhat incoherent outline of the subject, but perhaps it may prove of some use as a reference to my intelligent brother practitioners, should they be called upon to treat cholerine diarrhœas, from which, however, we hope a merciful Creator may save his generally favored people, the American nation.

Dr. Keyes often orders the following in constitutional syphilis:

℞	Potass. iodid.,	ʒij;
	Ammonii carbonatis,	℥ss;
	Tr. cinchonæ comp.,	ʒiv;
	Syr. aurantii cort.,	ʒiss;
	Glycerinæ,	℥j.—M.

Sig. A teaspoonful, well diluted, after each meal.—*Ther. Gazette.*

PHARMACY.

In charge of WM. E. CATES, Ph. G.

CRITICISM ON RECENT PRESCRIPTIONS.

℞ Antipyrin. . . . . ℥i;
Tinct. ferri citro-chloridi, ... ℥ii;
Syr. aurantii, ... ℨii;
Aqua q. s. ft. . . . . ℨiv.—M.

The antipyrin being dissolved in one and one-half ounces of water, the syrup of orange was added, then the tincture citro-chloride of iron. An intense red color was produced, showing the reaction of the iron on the antipyrin.

℞ Sodæ bicarb. . . . . ℥iii;
Sodæ brom. . . . . ℥vi;
Aqua q. s. ft. . . . . ℨiv.—M.

If the bicarbonate of sodium is dissolved in 4 ounces of water, forming a saturated solution (bicarb. soda, soluble 1 in 12), the solution filtered and the bromide of soda added, the result is a white, impalpable precipitate.

If the bromide of soda be dissolved first and the bicarbonate last, a clear solution will be formed, with the exception of the small amount of bicarbonate which remains undissolved.

This precipitate does not form when bromide of potassium is substituted for the bromide of sodium; on the contrary, a perfectly clear solution results.

℞ Potass. iodidi . . . . . ℥iv;
Spts. aeth. nit . . . . . ℨi;
Tinct. catechu . . . . . ℨi;
Aquæ . . . . . ℨiv;
Syrup. q. s. ft. . . . . ℨviii.—M.

The object of the physician in prescribing this, was to get free iodine in solution. I consulted the physician before compounding the prescription and found that was his object. On adding the sweet spirits of nitre to the iodide, dissolved in the water, a deep brown coloration was obtained, owing to the liberation of free iodine.

The mixture was made up to seven ounces with syrup and the tincture of catechu added, which resulted after a few moments, in the entire precipitation of the catechu.

A shake label was put on the bottle and the mixture given to the patient.

RHODE ISLAND PHARMACEUTICAL ASSOCIATION.

THE twentieth semi-annual meeting of the Rhode Island Pharmaceutical Association will be held on Wednesday afternoon, July 12, 1893, at 2:30 o'clock. The meeting this year is to be held in the rooms of Westminster Lodge, corner of Weybosset and Richmond streets. The Mortar and Pestle Club will meet at the same place on the same day at 2 o'clock P. M.

It has been arranged between the officers of both organizations, that the meeting of the Association be called to order directly after the Club has adjourned, and the Association will invite the members of the Club to meet with them. The committee on Papers and Queries of the Association will no doubt present several interesting papers to be read on this occasion, and every member is earnestly requested to present a paper of some kind on some subject, scientific, commercial or on some every-day subject. There is not a member of the association but who is capable of writing as good a paper as those of other societies. At the meetings of the associations of our sister states, anywhere from five to fifteen or even more papers are read; why can we not do as well as they? Are we not as well qualified as they? And why can we not interest ourselves a little and show the other associations of this country that Little Rhody contains just as good pharmacists and men as capable of writing a scientific paper now and then, as they are?

Please select your subject, write to the chairman of the committee on Papers and Queries, Mr. Charles E. Greene, of Hope Valley, your intention of presenting a paper at the next meeting of the Rhode Island Pharmaceutical Association; then come to the meeting and read your little paper, be it not more than one page of note paper. You will thereby raise yourself in the estimation of your fellow pharmacists and show the general public that you can do something beside selling patent medicines and nostrums.

There is no pharmacist so busy but that he can spare a few hours to devote to the matter.

Another reason why you should attend the meeting even if you do not see fit to present a paper: the inner man is to be provided for.

The refreshment committee of the Mortar and Pestle Club promises to have a little collation at the close of the meeting, and you all know, who have attended the recent meeting of this organization, how well they keep their promise. Come and see them out-do themselves at this meeting. *Come* whether you are a member of either organization or not, you will be welcome just the same. *Come* and join us. The interests of the Mortar and Pestle Club are your interests. Ninety per cent. of the pharmacists of Boston and Quincy have joined a similar

organization in Boston, let us out-do them and have one hundred per cent. join ours.

SOCIETY REPORTS.

THE AMERICAN MEDICAL ASSOCIATION.

FORTY-FOURTH ANNUAL MEETING, HELD AT MILWAUKEE, WIS., JUNE 6, 7, 8 and 9, 1893.

Special for the R. I. Medical Science Monthly.

GENERAL SESSION.—FIRST DAY.

DR. V. P. B. WINGATE, Chairman of the Committee of Arrangements, called the meeting to order, after which prayer was offered by the **Rev. Henry T. Secrist.** An address of welcome was made by **Hon. George W. Peck,** Governor of Wisconsin, which was followed by an address of welcome to the city by the **Hon. P. J. Somers,** Mayor of Milwaukee. The Chairman of the Committee of Arrangements then gracefully turned the chairmanship over to the President of the American Medical Association, **Dr. Hunter McGuire,** of Richmond, Va.

THE PRESIDENT'S ADDRESS.

The President said among other things:

Whatever the share of each or all, the members of the American Medical Association, representing 100,000 doctors with all the intelligence, professional cultivation, trained skill and experience, and high personal character which they should possess —dealing with matters affecting the mental and physical energies of this entire generation of Americans and the next—cannot but contemplate with gravest concern the important duties, the weighty responsibilities resting upon them.

Gentlemen, we must keep touch and time with all organizations of whatever character that have combined to present to the world the grand picture to which I have alluded. As patriotic citizens, we owe it to our country, as well as to the Association we represent, earnestly to strive to evolve through hard work, thorough observation, and knowledge of the needs and demands of all sections of the country, the things that are necessary not only for the preservation of health, but also for the highest conditions of physical and mental development.

There is no organization in this country so well equipped as ours for the accomplishment of the work we have undertaken.

In order that every obstacle may be removed and every agency brought to bear that can contribute to success, the medical man must gird himself for a stern battle with ignorance and prejudice, with misdirected intelligence and jealous conceptions of right. Our battle is first with the people and then with their representatives. The average citizen supposes that there is some subtle and selfish design on the part of the physician, especially on the part of the associated physicians, to deprive him of some portion of the personal privileges he now enjoys. The American believes that his house is his castle, and even as he worships his household gods, so does he worship magna charta, habeas corpus, trial by jury and representative government. The mental state thus engendered is one of morbid sensitiveness, and develops a temper that blindly strikes at all comers, and not least venomously at the investigator who would inquire into the condition of the premises where dis-

ease originates. Inquiry must be pushed in spite of all obstacles. There is no longer a question as to the absolute necessity for properly policing our cities, towns, villages and private houses. Healthful water supply and drainage, the right location of water closets and sinks and their disinfection, with the ventilation of all inhabited buildings, are now admitted to be essential to the maintenance of a high standard of health in every community. No physician is fairly discharging his duty who fails to seek information on all these subjects and to take advantage of the knowledge offered him; and he is criminally negligent if he fails to act upon these fundamental principles when the occasion arises.

Politicians, are as a rule, timid, apprehensive and eminently conservative where innovations against custom and habit are involved, or where popular objections are likely to be encountered. They can be made to move only through pressure brought to bear by a united public sentiment. It should be our endeavor to educate the masses up to the requirements in this direction. This we can best do by showing them the dangers which daily and hourly surround them from such diseases as are endemic and those that are of an epidemic and contagious nature. Through the politicians, acted upon by and coöperating with an intelligent public sentiment, state and local boards of health must everywhere be established. Their care will be to put in action the great *principle of prevention* now so much better understood.

The members of our respective State organizations should strive to enlarge their usefulness by bringing into them all reputable physicians who reside within their jurisdiction. This can best be done by demonstrating to outsiders, through the excellence of their work, the importance and practical use of becoming members of the State societies, and leading them to feel that to keep abreast of the times it is necessary to mingle, at least once a year, with the other progressive medical men in the State, for the purpose of interchanging views on current professional topics and discussing and determining such things as pertain to the protection of the health and the general welfare of their *clientele*.

The state societies should strive to induce their members to form societies in every county of their respective states, in all cities of the same, and in all townships, or parts of counties where there is a sufficient number of physicians to justify such organizations. In this way a local and general activity will be engen dered, and the average standard of professional intelligence raised to a degree which must result in great good to the residents of each State.

As for the workings of this Association, its organization has improved with each year, and I trust and believe that this advancement will be continuous, until we reach that degree of systematic arrangement which will enable us to accomplish the greatest amount of good attainable in the time alloted to its annual meetings.

As essential to this purpose, I sincerely hope that you will adopt some plan by which will be checked the growing tendency to read or have read before this body lengthy papers that could be considered and dealt with in a much more effective manner by the separate sections.

CONSTITUTION AND CODE.

The President suggested that this matter lie over for another year and that each respective state society, entitled to representation, should pass upon the same and report to the American Medical Association next year, as the majority of those attending the meeting of the Association is determined by the meeting place, and a fair, national expression of opinion is thus impossible.

MEDICAL EXAMINING BOARDS.

State medical examining and licensing boards had contributed greatly to the elevation of the standard of medical education generally. Colleges had raised

their requirements for entrance and for graduation, and sent out men better fitted for their professional work than formerly, as a result hereof.

Conferences of delegates from such State boards were advised with a view to obtaining uniform State laws. Many state boards and the laws governing them were now defective.

SECRET AND POISONOUS MEDICINES.

This Association owes to the people of this country an earnest effort to stop the sale of secret and poisonous medicines. Free trade in physic is permitted, as far as I can learn, only in this country, and any quack can advertise in the reading and other columns of our newspapers his so-called patent medicines. Many of these nostrums are known to be poisonous, and of course hurtful. All over continental Europe grocers and druggists are forbidden to sell any pharmaceutical preparations or compounds. This right is restricted to the pharmacist or apothecary; and he is often subjected to rigorous inspection, to very rigid laws, and to heavy penalties for their violation.

If each state would require the vender of any secret remedy to submit his formula to a board appointed by the state for this purpose, said board having the power to grant or refuse a license to sell, this already great and growing evil would be materially lessened or stopped.

SMALL POX, TYPHOID FEVER, ETC.

Until legislation of a uniform character is had, preventing the introduction from without and eradication of these diseases wherever they occur, as well as mumps, measles, whooping cough, scarlet fever and diptheria, there will be a constantly impending danger of local and general outbreaks.

The President mentioned that *Jenner* and *Koch* were country doctors, and praised this valuable contingency—the back bone and body of our medical societies.

QUARANTINE.

Much attention was paid to this subject and a masterly effort was made to arouse the apprehensions of this country.

Past experiences were mentioned where strict and efficient quarantine had kept infectious diseases out, as for example, during the war of the rebellion; in every seaport along the South Atlantic and Gulf States that was effectually blockaded yellow fever did not occur, but those not so blockaded, Wilmington, N. C. for example, had frightful epidemics.

In America, while we enjoy the blessings of a freedom never before equalled, yet the greatest enthusiast will not fail to acknowledge that our form of government has some defects when it is called upon to grapple with questions that require the curtailment of the personal liberty of the citizen for the benefit of the people at large.

The President believed in the modern system of quarantine, based upon scientific methods and apparatuses.

New Orleans had been free from yellow fever for the last twelve years by its "perfect system of maritime sanitation."

NATIONAL BOARD OF HEALTH.

Every important power in Europe has its chief sanitary body independent of the army and navy, and such a health organization is with us a grave necessity.

Two years ago, when the meeting of the Association was held at Washington, a bill and recommendations were made to the effect that a minister of health be created who should be a cabinet officer. The bill was entirely ignored in the recent legislation by Congress, although it is still pending.

At the last meeting of the American Public Health Association, held in the City of Mexico, the committee on national health legislation recommended the appointment of a national health bureau and a commissioner of health, who should be the chief sanitary officer of the United States; said bureau and commissioner (sanitary) to be independent of the medical bureau at Washington. The law that was passed by the recent Congress was a compromise between some of the bills pending in Congress, and owing to the necessities then existing the legislation was hurried, and although in some respects in advance of what had existed before, still to the sanitarians and those interested in the sanitary welfare of the nation, it is far from being satisfactory.

I learn that there will be an organized movement to secure legislation by Congress on the lines indicated, and I would respectfully suggest that a committee be appointed from this Association to coöperate with the committee appointed by the American Public Health Association and committees of other important bodies, interested in securing the legislation needed.

The President thanked the Association for the honor conferred upon him and closed with the hope that:

In the discussions that are to follow, the papers that are read and the questions proposed, you will agree with me that it becomes us to display no bitterness or partisan spirit, but in debate, however earnest, be very careful to remember that our opponents are entitled to credit for equal honesty of conviction and purpose with ourselves and the same desire to further the interests of this Association. The bigotry and intolerance we sometimes see in theological debates, and the partisan rancor often found in political contests, should have no place in questions that come up for consideration in an Association like this.

Let us strive to show to the world that our whole object is scientific work; and our high purpose—the good of mankind.

The President's address was referred to a special committee.

Mr. Ernest Hart, editor of the *British Medical Journal*, London, England, addressed the Association as follows:

Gentlemen of the American Medical Association: I am not prepared for the public honor here bestowed upon me. I bring to you the greetings of the British Medical Association, in behalf of which I attend here as a delegate. You need not any assurance from me of the profound interest and brotherly esteem which that Association has, founded upon your programmes, your objects and the remarkable rapidity with which this Association is now growing, and I can assure you that the British Association of Europe watch with great interest this Association, and has seen with great satisfaction how high and great a stand this Association has made on the important subjects of medical ethics, in dealing with which you have conceived lines unanimously endorsed by the Association of which I have the honor to be a member.

The Secretary's report was then read and received.

The committee on "Rush Monument" was continued.

The committee on "Secretary of Public Health" made its report which was adopted and is to be printed, and the committee was continued with power to fill vacancies.

Dr. C. A. L. Reed presented the report of the Pan-American Medical Congress.

General session adjourned.

[TO BE CONTINUED.]

The ludicrous spectacle of Dr. W. A. Hammond suing Parke, Davis & Co. for infringing on his rights concerning the manufacture of organic extracts and for breach of medical ethics, is before the profession.—*Omaha Clinic.*

THE AMERICAN ACADEMY OF MEDICINE

held its meeting shortly before the meeting of the American Medical Association. The papers read were scholarly and pointed, all aiming at better literary and professional education of aspirants to the medical course. The annual dinner was much enjoyed.

THE AMERICAN MEDICAL EDITORS' ASSOCIATION

held its meeting just previous to that of the American Medical Association and it was certainly a grand success.

Dr. J. C. Culbertson, editor of the Journal of the American Medical Association and president of the Editors' Association delivered his annual address.

The Doctor said in substance:

"A combination of medical journals is to the physician the best and cheapest university system, equal to a post-graduate school, for the post-graduate school can only be attended by a select few.

"The man who graduates in medicine and does not continue his studies quickly becomes a musty back number and loses his identity as a progressive, integral part of the medical profession.

"The local journal should be the first in this combine and should be uppermost in every doctor's affections, and should have his good will and generous support.

"Contributions to its pages should be made often and brief; but it should be the bounden duty of every one to at least once a year make his offering in this channel.

"The subscription price of the local journal should never be allowed to run over, for there is never a time when the local journalist is not doing more for his profession than it is doing for him. The large weeklies should occupy the second position in this university system.

"Next come the scientific monthlies.

"Every member of this Association (the Editors) is doing the very best he can for the journal he edits, and is only prevented from doing very much better because of his environments and financial limitations, and in no instance will any one presume to say that his journal is the best that he can make it, providing he were differently circumstanced.

"Book reviews should be limited to the briefest possible acknowledgement of the receipt of the volume.

"As medical book making is a commercial business, publishers should continuously patronize our advertising pages. Our British medical journalists conduct their publications in a model manner in this regard.

"A fair proportion of the pages of every medical journal should be used for advertisements of dealers in all kinds of physicians' supplies, educational institutions, hospitals, sanitarians and whatever is of such a nature as to particularly appeal to physicians for patronage.

"Advertisers are next to subscribers the most valuable adjuncts a medical journal can have. They are our most liberal financial supporters and should have our most friendly consideration.

"A medical journal may be ever so ethical and high toned, edited by a Holmes or a Mitchell, be printed on 100-pound supersized calendered paper, with new old style type and gilt edge, but without advertisements it would be defective, incomplete, crippled, and recognized as *too good for this world*. Reading notices should not be inserted, however."

The doctor thought it would promote mutual cordiality between the advertiser and the publisher to leave out the middle man, the advertising agent, and do business with the advertiser direct.

He condemned so-called medical journals recognized as trade publications, issued by commercial and manufacturing dealers in physicians' supplies.

"Such so-called medical journals do not deceive Weir Mitchell, William Pepper, Nicholas Senn or William Osler, but they do deceive hundreds and thousands of medical practitioners, who are not familiar with the wiles of those who scheme to deceive the very elect."

Dr. Gould, editor of the *Philadelphia Medical News*, read a paper on "The Spelling of Some Medical Words."

Dr. Crothers, editor of the *Journal of Inebriety*, also read a paper on "The Interests of the Association."

At the banquet, the special guest of the occasion, *Mr. Ernest Hart*, editor of the *British Medical Journal*, gave an address upon

JOURNALISM AS A CAREER.

Owing to lack of space we must publish the address in full in next number, and only insert what our clever contemporary, the *Omaha Clinic*, said about it:

The address was the best treat American medical editors have ever enjoyed. He told the story of medical journalism in England when he related that twenty years ago he resigned the editorship of the *London Lancet* to take in charge the *British Medical Journal*, then but little larger than the few sheets from which he was reading. But his faith that in such an Association should be the power to make the greatest journal in England, induced him to give up a large recompense, for at that time nothing. and to-day this journal has a reserve fund, self-earned, of $500,000 and the Society a membership of over 16,000. He also stated that the *British Medical Journal* had 200 editorial writers. Mr. Hart dwelt upon the great interest and the kindly feeling of the British Medical Association for the American Medical Association, and he outlined the policy on which the latter's journal should be the greatest power in the medical profession in America; and, with its Association behind it, it could make itself felt in all matters pertaining to State and National Legislation, just as Great Britain's Association has a voice that is felt in Parliament whenever any issue in which the medical profession is interested, is before that body and Parliament dare not but take heed to England's medical men joined so strongly in this great and active Association. Judged from a political standpoint the force of these remarks were shown by Governor Peck, of Wisconsin, who was a close listener and who rose later to say that he was "forced to-night to realize what a power the medical profession, when joined, was destined to wield in the politics of this country, and how its voice *must* be heard in legislation for the good of humanity."

DENTISTRY.

In Charge of S. W. CLARKE, M. D., D. D. S., President, R. I. Dental Society.

DENTAL REFLEXES.

THE relation of the tooth to other parts of the body is more intimate than at first seems possible. Thus many familiar and some not so familiar reflex neurosis occur in relation to the teeth, a knowledge of which is essential to the dental surgeon, and should be to the general practitioner. Pain located in a tooth by no means

makes it sure that that tooth is the cause of the trouble. The seat of the trouble may be in another tooth, or elsewhere. This fact is noticed almost daily by the dentist. Then again dental troubles may induce pathological conditions in other structures of the body, without the patient feeling the slightest pain in his teeth. In other words, as Brubaker has expressed it: "We may have toothache in the brain, ear or stomach, or have headache, gastritis, etc., in the teeth." Cases in which the trouble seems to be in the teeth, but really is in some other structure are many. Very often patients come to us asking us to remove a perfectly sound tooth because it aches, as they say, when, by removing the really offending tooth the pain instantly leaves the sound one. This is called sympathetic pain. Dr. Pearce gives an example of a patient suffering a week with neuralgia of the teeth, which, upon examination, were found to be sound. He found by questioning that the patient's bowels had not been moved for a week. A few purgatives gave complete relief. Ulcerations of the uterus sometimes produce odontalgia, which leaves when the ulcer is healed, and it is a well known fact that pregnant women often suffer with the same trouble, until after confinement. Certain systemic disturbances caused by the poisonous malaria, gout, syphilis, etc., sometimes cause odontalgia. It is well to remember these cases in our diagnosis, for by it sometimes the general practitioner would be better able to help the patient than the dentist. But then, there are cases where the trouble really is with the teeth, although apparently treated in some other structure. Very often to-day the oculist sends his patient to the dentist to be assured the teeth are in good condition before he starts his treatment. Cases of strabismus and ptosis have been cured by the extraction of decayed and diseased roots. Cases of conjunctivitis, sclerotitis and neuralgia of the eyeball, have been caused by dental trouble and cured as soon as the teeth were placed in good condition. A. G. Richter relates a case of a woman who had been blind for years, regaining her sight after the extraction of a tooth. Inflammations of the ear and deafness have been cured by having decayed teeth extracted. Gastric disturbances also have been incurable until the teeth were treated first. Thus we see that almost any organ can be affected by reflex action reflecting from the teeth. It will behoove the practitioner therefore before he gives his diagnosis to examine the teeth of his patient, and if out of order send the same to a dentist to have them put in order before he begins his treatment.

THE SURGEON-GENERAL OF THE U. S. ARMY.

The President has appointed Surgeon George M. Sternberg, Surgeon-General of the Army, Vice Charles Sutherland, retired. This appointment is in accord with the policy adopted in the appointment of the Surgeon-in-Chief of the Navy.

The R. I. Medical Science Monthly.

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We have a number of Associate Editors in America and Europe whose names will be inserted in future issues.

All communications to this Journal of any nature whatsoever, whether Letters, Exchanges, Books or Pamphlets for Review, or anything intended for the Editorial or Business Department, **should be addressed exclusively to**

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Books and monographs, native and foreign, on any of the Medical Sciences, will be reviewed without fail, according to their merits and the space at disposal.

Alterations in the proof involving an excessive amount of work, will be charged to authors at the rate of 60 cents an hour.

Contributors desiring Reprints or Extra Copies of the Journal can obtain them at reasonable rates by application to the Business Department immediately upon the acceptance of the article.

EDITORIAL.

THE meeting of the State Society of R. I., and the many other National Society meetings held this month, have taxed our space to the utmost and many things that would otherwise have appeared, have been crowded out in order to do our societies proper justice. It seems that papers and discussions at our societies are improving with every year; this can be said with particular emphasis of the meetings at Milwaukee. This is a glorious year for progress in Medical Science.

MORTALITY IN RHODE ISLAND DURING MAY, 1893.

DEATHS REGISTERED IN TWENTY-THREE CITIES AND TOWNS, AND REPORTED TO THE STATE REGISTRAR, DR. CHARLES H. FISHER.

Whole Number Reported 525

SEX.		PARENTAGE.	
Males	272	Native	250
Females	253	Foreign	275

Principal Causes of Death.

Accidents, Various	11	Inanition	7
Apoplexy	15	Influenza	14
Brain, Disease of	10	Kidney, Diseases of	16
Bronchitis, Acute	21	Kidney, Bright's Disease of	8
Cancer, Various	14	Laryngitis	2
Child Birth	1	Measles	15
Cholera Infantum	1	Meningitis	3
Consumption	53	Meningitis, Cerebro-Spinal	1
Convulsions	11	Nephritis	2
Debility	4	Old Age	13
Debility Infantile	12	Pleurisy	6
Debility, Premature Birth	3	Pneumonia	81
Diarrhœa	3	Scarlatina	19
Diphtheria	10	Stomach Disease	8
Enteritis	4	Tetanus	2
Fever, Typhoid	4	Tuberculosis	8
Gastritis	2	Still-born	17
Heart, Diseases of	45		

The towns making returns represent an estimated population of 323,418.

The *monthly* death-rate is 1.62+ in every 1,000.

The *annual* death-rate upon the estimate given is 19.44 in every 1,000 of the population.

Still-born included.

The death-rate is rather smaller than for the previous month, and the general sickness throughout the State was reported as rather smaller.

Towns not reporting deaths up to the time of making up tables for the press, May 12—Charlestown, Smithfield, Richmond, North Kingstown, Cranston, South Kingstown, Narragansett, Scituate, New Shoreham, West Greenwich, Jamestown, Tiverton, Lincoln, North Smithfield.—*Monthly Bulletin.*

OUR CORNER.

At the summer session of the British Medical Council, held recently, the following report of the Education Committee was adopted as:

Regulations of the Licensing Bodies under which they grant Qualifications to practise Medicine, Surgery and Midwifery.

With regard to course of study and examinations which persons desirous of qualifying for the medical profession shall go through in order that they may become possessed of the knowledge and skill requisite for the efficient practice of medicine, surgery, and midwifery, the Council requires that:

I. Every medical student shall be registered in the manner and under the conditions prescribed by the General Medical Council.

II. With the exceptions provided for under Section IV, (*a* and *b*), the period of professional study between the date of registration as a medical student, and the date of the final examination for any diploma which entitles its holder to be registered under the Medical Acts, shall be a period of *bonâ fide* study during not less than five years.

III. In every course of professional study and examinations the following subjects must be contained:—

(i) Physics, including the Elementary Mechanics of Solids and Fluids, and the rudiments of Heat, Light, and Electricity.

(ii) Chemistry, including the principles of the science, and the details which bear on the study of Medicine.

(iii) Elementary Biology.

(iv) Anatomy.

(v) Physiology.

(vi) Materia Medica and Pharmacy.

(vii) Pathology.

(viii) Therapeutics.

(ix) Medicine, including Medical Anatomy and Clinical Medicine.

(x) Surgery, including Surgical Anatomy and Clinical Surgery.

(xi) Midwifery, including Diseases peculiar to Women and to newborn Children.

(xii) Theory and Practice of Vaccination.

(xiii) Forensic Medicine.

(xiv) Hygiene.

(xv) Mental Disease.

IV. The first four of the five years shall be passed at a school or schools of medicine recognised by any of the licensing bodies enumerated in Schedule (A) of the Medical Act (1858), provided:—

(*a*) That the first year may be passed at a university or teaching institution, recognised by any of the licensing bodies, where the subjects of Physics, Chemistry and Biology are taught.

(*b*) That graduates in Arts or Science of any university recognized by the General Medical Council, who shall have spent a year in the study of Physics, Chemistry and Biology, and have passed an examination in these subjects for the degrees in question, shall be held to have completed the first of the five years of medical study. —*British Medical Journal, No 1692.*

CALENDAR OF MEDICAL SOCIETIES.

National Am. Academy, J. E. Emerson, Detroit, President; C. McIntyre, Easton, Pa., Secretary; Milwaukee, June 5, 1893.

National Am. Anatomists.

National Am. Andrological, E. R. Palmer, Louisville, President; J. A. Fordyce, New York, Secretary; Harrogate, Tenn., June 20, '93.

National Am. Climatological, G. T. Jackson, New York, President; G. H. Fox, New York, Secretary; Milwaukee, Sept. 5, 1893.

National Am. Dermatological.

National Am. Gynecological, T. Parvin, Philadelphia, President; H. C. Coe, Secretary; Philadelphia, May 12, 1893.

National Am. Health Resort.

National Am. Laryngological, C. H. Knight, New York, President; M. J. Asch, New York, Secretary; New York, May, 1893.

National Am. Physicians, A. L. Loomis, New York, President; H. Hun, Albany, Secretary; Washington, May 30.

National Am. Public Health.

National Am. Railway Surgeons, C. W. P. Brock, Richmond, President; E. R. Lewis, Kansas City, Secretary; Omaha, June.

National Am. Rhinological, E. K. Lewis, Indianapolis, President; R. S. Knode, Omaha, Secretary; Indianapolis, October, 1893.

National Am. Surgical.

National Mississippi Valley, R. S. Sutton, Pittsburg, President; C. A. L. Fitzpatrick, Secretary; Indianapolis, Oct. 12, 1893.

National Pan-Am. Congress, W. Pepper, Philadelphia, President; C. A. L. Reed, Cincinnati, Secretary; Washington, Sept. 5, 1893.

State, Alabama, J. T. Searcy, Tuscaloosa, President; T. A. Means, Huntsville, Secretary; Tuscaloosa, April 8.

State, Arizona, J. Miller, Phoenix, President; J. T. Green, Tucson, Secretary.

State, Arkansas, J. T. Jelks, Hot Springs, President; L. P. Gibson, Little Rock, Secretary; Little Rock, June 2, 1893.

State, California, W. E. Taylor, San Francisco, President; W. W. Kerr, San Francisco, Secretary; San Francisco, April 18, 1893.

State, Colorado, W. E. Wilson, Denver, President; H. S. Lobinger, Denver, Secretary; Denver, June 15, 1893.

State, Connecticut, C. B. Newton, Stafford Springs, President; N. E. Worden, Bridgeport, Secretary; Hartford, May 24, 1893.

State, Dakota, North, A. P. Rouncseveille, Larimie, President; D. S. Moore, Jamestown, Secretary; Jamestown, May 25, 1893.

State, Dakota, South, A. L. Peterman, Parker, President; R. C. Warne, Mitchell, Secretary; Huron, June 4, 1893.

State, Delaware, E. W. Cooper, Camden, President; W. C. Pierce, Wilmington, Secretary; Rehoboth, June, 13, 1893.

State, Florida, S. Stringer, Brookville, President; J. H. Douglass, Jacksonville, Secretary; Jacksonville, April 4, 1893.

State, Georgia, A. H. Smith, Hawkinsville, President; D. H. Howell, Atlanta, Secretary; Americus, April 21, 1893.

State, Idaho.

State, Illinois, E. F. Ingals, Chicago, President; D. W. Graham, Chicago, Secretary; Chicago, May 16, 1893.

State, Indiana, G. F. Beasley, Lafayette, President; E. S. Elder, Indianapolis, Secretary; Indianapolis, May 9, 1893.

State, Indian Territory, D. Bagley, Vinita, President; H. B. Smith, McAlester, Secretary; Atoka, June 5, 1893.

State, Iowa, C. M. Hobby, Iowa City, President; C. S. Chase, Waterloo, Secretary; Des Moines, May 18.

State, Kansas, F. F. Dickman, Fort Scott, President; G. C. Purdue, Wichita, Secretary; Topeka, May, 1893.

State, Kentucky, A. Dixon, Henderson, President; Steele Bailey, Stanford, Secretary; Frankfort, May 3, 1893.

State, Louisiana, S. E. Archenard, New Orleans, President; P. B. McCutcheon, New Orleans, Secretary; New Orleans, May 9, 1893.

State, Maine, A. H. Mitchell, Brunswick, President; C. D. Smith, Portland, Secretary; Portland, June 14, 1893.

State, Maryland, L. McLane Tiffany, Baltimore, President; G. L. Taneyhill, Baltimore, Secretary; Baltimore, April 25.

State, Massachusetts, J. C. White, Boston, President; F. W. Goss, Roxbury, Secretary; Boston, June 13, 1893.

State, Michigan, G. V. Chamberlain, Flint, President; C. W. Hitchcock, Detroit, Secretary; Muskegon, May 11, 1893.

State, Minnesota, A. W. Abbott, Minneapolis, President; C. B. Wetherle, St. Paul, Secretary; Minneapolis, June 21.

State, Mississippi, W. Kriger, Vicksburg, President; H. H. Haralson, Meridian, Secretary; Jackson, April 18, 1893.

State, Missouri, A. B. Miller, Macon, President; F. R. Fry, St. Louis, Secretary; Sedalia, June 30.

State, Montana, W. Trearcy, Helena, President; Dr. Ellis, Butte, Secretary; Great Falls, April 19.

State, Nebraska, M. L. Hildreth, Lyons, President; G. W. Wilkinson, Omaha, Secretary; Nebraska City, May, 1893.

State, Nevada.

State, New Hampshire, M. W. Russell, Concord, President; G. P. Conn, Concord, Secretary; Concord, June 20.

State, New Jersey, G. T. Welsh, Passaic, President; W. Pearson, Orange, Secretary; Spring Lake, June, 1893,

State, New Mexico, M. F. Desmaris, Las Vegas, Secretary.

State, N. Y. Association, S. W. McLeod, New York, President; E. D. Ferguson, Troy, Secretary; New York, October 19, 1893.

State, N. Y. Society, L. S. Pilcher, Brooklyn, President; F. C. Curtis, Albany, Secretary; February 7, 1893.

State, North Carolina, J. W. McNeill, Fayetteville, President; R. B. Jewett, Wilmington, Secretary; Wilmington, May 7.

State, Ohio, D. P. Allen, Cleveland, President; T. V. Fitzpatrick, Cincinnati, Secretary; Put-in-Bay.

State, Oklahoma, C. B. Bradford, President; Loss Walker, Oklahoma City, Secretary.

State, Oregon, W. E. Rinehart, President; C. H. Wheeler, Portland, Secretary.

State, Pennsylvania, H. L. Orth, Harrisburg, President; W. B. Atkinson, Philadelphia, Secretary; Williamsport, May 16, 1893.

State, Rhode Island, W. H. Palmer, Providence, President; W. R. White, Providence, Secretary; Providence, June 2.

State, South Carolina, W. H. Narlen, Anderson, President; W. P. Porcher, Charlestown, Secretary; Sumpter, April 3, 1893.

State, Tennessee, C. W. Beaumont, Clarksville, President; D. E. Nelson, Chattanooga, Secretary; Nashville, April 11, 1893.

State, Texas, J, W. Osborne, Cleburne, President; H. A. Weston, Galveston, Secretary; Galveston, May, 2, 1893.

State; Utah.

State, Vermont, J. W. Jenne, St. Louis, President; D. C. Hawley, Burlington, Secretary; Montpelier, Oct. 14, 1893.

State, Virginia, H. M. Nash, Norfolk, President; L. B. Edwards, Richmond, Secretary; Charlottesville, October, 1893.

State, Washington, N. F. Essig, Spokane, President; O. G. Shaver, Tacoma, Secretary.

State, West Virginia, D. P. Morgan, Clarksburg, President; D. Mayer, Charlestown, Secretary; Parkersburg, June, 1893.

State, Wisconsin, B. T. Phillips, Menominee, President; C. S. Sheldon, Madison, Secretary; Milwaukee, May 3, 1893.

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SYPHILIS—AN INTERVIEW.

Q.—Doctor. From a rather large experience in the treatment of syphilitic and dermatological diseases, as well as a co-extensive experience with the pharmacopœia of this line of practice, what is your opinion of the comparative value of Elixir Three Chlorides R & H say in syphilis?

A.—Theoretically and practically, it is a most reliable article, and I believe it to be one of the best and most trustworthy combinations the physician has at his command.

Q.—But in syphilis—particularly in the chronic form?

A.—In acute *or* chronic it is valuable. In the acute stage, as an alterative and tonic in maintaining the strength and vigor of the patient, while its perfect compatibility with iodide of potassium or mercury in larger amounts, it certainly acts admirably. As a vehicle for iodide potass, to prevent coryza and overcome to a large extent, gastric disturbances, it is to be recommended.

Q.—In chronic syphilis?

A.—In chronic syphilis, alone or in connection with such other remedies as may be indicated, I prize it highly and consider it well worthy the attention of the . . . . . and conscientious physician.

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LECTURES ON THE CONDUCT OF MEDICAL LIFE.

By S. WEIR MITCHELL, M.D., LL.D.

A GREAT soldier was asked in my presence what was, in warfare, the most interesting thing. He said, "Recruits going into their first battle." What he thought as to the young soldier I feel whenever it is my lot to see a mass of men about to turn from the training of the schools and to face the grim realities of the physician's life.

Here before me are some hundreds of men in the morning of existence. Where will the noonday find you? And the evening hour, when labor is over, and, looking back, the conscience, undisturbed by new ambitions, shall make up the ledger of a life—will it leave you weighted with the debts of wasted chances, or rich with the honest interest of accumulated character? That the veteran, like myself, should look with a certain sad curiosity at a group of young soldiers is not strange. Here are men of varied individuality, of unequal fortunes, of every condition of life—some for whom all their ways have been thus far made easy, some for whom life has been always hard. Here, at least, within these walls you have all had equality of opportunity. Let me hopefully presuppose you one and all to have used with diligence the precious years of training. You have thought, of course, of what you want to win. You vaguely call it success—success in life. That may mean many things you did not want or expect. You will fail where you least look for failure. You will win what you never dreamed of getting. . . .

I shall try to remember only that you are all to be of the great army of medicine. First of all, I own for you the wish that in this vast organized body you shall take honest pride. Through it you will earn your bread, and, I trust, much beside a mere living. That you may correctly estimate its splendid history, that you may fitly comprehend the opportunities it gives, let us look a little broadly for a time at some of its virtues and some of its values. I could wish that you were really taught something of the wonderful history of medicine. I have myself ancestral pride in the splendor of its conquests, the courage and heroism

of its myriad dead. I am fond of saying it is a guild, a fellowship, a brotherhood, older than civilization. It had a creed of moral life antique when Christ was born. No other organization is like it. Customs, code and creed separate the lawyer and clergyman of different lands; but we in all lands hold the same views, abide by the same moral law, have like ideas of duty and conduct. From Japan to London you may claim medical aid for self or wife or child, and find none willing to take a fee. There is something fine and gracious in this idea.

I once asked the care of a physician I never saw or heard of before in a German town. As I was about to pay him a card dropped from my pocketbook. He glanced at it, and said, "But you are a doctor; I can take nothing—nothing." I remonstrated in vain. "No," he said, "you will make it up to some other doctor." I believe that I have paid this debt and other like debts with interest. I hear now and then of men who break this beautiful rule which makes professional service given by one physician to another a friendly debt for which the whole brotherhood holds itself responsible. Doctors are said to differ, but these bonds of union and generous amity are mysteriously strong. Try to keep them so, and when you serve medical men go about it as if they were laymen. Put away all thought of wasted time, of the commercial values of what you give. The little biscuit you cast on the waters will come back a cheerful loaf. I consider it a glad privilege to help thus my brothers in medicine, and let me assure you few are more heavily taxed than I.

And there is another privilege your profession brings. From the time you graduate until you cease to work, whether in town or country, hospital or wretched homes, the poor will claim from you help in time of sickness. They will do it, too, with tranquil certainty of gracious service on your part.

The greatest of moralists has said, "The poor ye have always with ye." I think He meant to speak of the poor as representing opportunities for self-sacrifice never absent. Of a certainty it applies to us. The poor we have always with us—the sick poor. . . . .

On every Friday I conduct the clinical out-service at the Infirmary for Nervous Disease. I never go through these long and tiresome hours of intense attention without feeling that it is needful to put some stress on myself that I be not negligent or hasty, vexed or impatient, or fail as to some of the yet finer qualities of social conduct. I want you also to feel that such self-watchfulness is needed. These early years among the poor, or the class of uncertain debtors, are apt to make some men rude, and uncareful, and ill-tempered. Most honestly do I say that such work is what I may call an acute test of character. . .

A part of your life-work consists in giving of your best to those who

cannot pay. A part consists in work for honest wages. I think you happy in that our work is not altogether paid labor, and not wholly work without pay. In both are chances which, rightly used, make the good better, the wise wiser; and there are many sides to it all. . . .

I do not like to leave this subject without a living illustration. It is strange and interesting to see what our life does with different kinds of men.

I once went through a hospital ward in France watching the work of a great clinical teacher, long gray in the service of the sick. It was as pretty and gracious a thing as one could see. The examinations were swift, the questions few and ready. Clearly, he liked his work. A kindly word fell now and then; faces lit up as he came near. Now and then he answered a patient gravely and simply where there was real reason to do so, and twice I observed that when he did this he sat down as if in no haste—a nice trait of gentle manners. It was a ward of women, and he was very modest—a too rare thing in France hospitals in my student days. When he went away his interne told me that he had been very sharp with him for a piece of neglect, "but," said the doctor, "he never says a word of blame at the bedside." In fact, this great physician was a gentleman—a much-abused word—but think what that may fully mean; a man in the highest sense of manhood—so gentle (good old English word), that every little or large act of duty or social conduct is made gracious and beautiful because of the way of doing it.

I saw a week later a great French surgeon in his clinic of women. The man was as swift and as skilful as could be. He was also ill-tempered, profane, abrupt, and brutally immodest—a strong, rough, coarse machine; and this was what the medical life had done with two men. With less intellect this rude nature must have altogether failed of success in life. He did not fail being a man of overwhelming force and really admirable mental organization; and so when you read of Abernethy's roughness and the like, pray understand that such great men as he win despite bad manners, and not because of them. There is no place where good breeding and social tact—in a word, habitual good manners—are so much in place as at the bedside or in the ward. When Sir Henry Sidney wrote a letter of advice to his son—the greater Sidney, Sir Philip, he said, "Have good manners for men of all ranks; there is no coin which buyeth so much at small cost."

A clever woman of the world once said to me: "I sent for Dr. A. yesterday, and by mistake the servant left the message with Dr. B. He came at once, and really he was so well-mannered and pleasant that I quite forgot what a fool he is."

I know men who have had large success in practice chiefly because

of their gentleness and sweetness in all the relations of life. I know of far more able men who have found life hard and the winning of practice difficult simply because they lacked good manners or wanted tact. We began about the poor, and here we are discussing manners. I had not meant to say of it so much, but, on the whole, I am not sorry. Pray remember, finally, that neatness of dress and the extreme of personal-cleanliness are, shall I say, a sort of physical good manners, and now-a-days the last words of science are enforcing these as essential to surgical success.

There is a wise proverb of the east, "He who holds his tongue for a minute is wise with the wisdom of all time." I am fond of proverbs, and this is full of meaning, for really to refrain from instant speech when irritated is victory. An hour later you are sure to be silent enough. The temptation to speech is momentary. Above all, try not to talk of your patients—even with doctors. It is usually a bore to be told of cases, and we only stand it because we expect our own boring to be, in turn, endured. But my ideal doctor who reads, thinks, and has a hobby will not need to gossip about patients. He will have, I trust, nobler subjects of conversation. When I hear a young man talk cases or read them in societies with heavy detail of unimportant symptoms I feel like saying of him, as was once said in my presence of one who amply justified the prediction, "That man has a remarkably fine foundation for dullness in after life." . . . . . .

The methods of note-taking you are well taught, and, too, I hope, the best ways of examining your cases. As to this, circumstances must guide you. A patient is often a bad witness, and one man gets at the truth of his case—another does not.

As to acute cases, it is immensely valuable to learn through concentration of attention to be rapid without omissions. Dr. Edward Dalton is quoted as saying to his class, "After careful and repeated auscultation, percussion, palpatation, and even succussion of your patient for twenty minutes, *you* may not be very tired. *He* is."

As you go on in practice you will get to be fond of certain drugs.

Be a little careful of this habit, which has its reasonable side. Even the best of us fall into this therapeutic trap. I once met in consultation the late Prof. Blank, a delightful and most able physician. As I came out of the house I fell upon his son, also a doctor. "Ah!" he said, "you have been meeting my father; I am sure he advised Plumer's pills"—an old mercurial preparation. It was true.

As I watch the better medical practice, I see a tendency to rely less upon mere drugs, and more and more sharply to question their value.

The true middle course is to be skeptical as to new drugs, and to test them over and over before being mentally satisfied. Nor is it well to

run into the extreme, which in our civil war caused an order forbidding the use of calomel because of the folly and indiscretion with which a few men had used it. After all, one of the most difficult things in ours, the most inexact of sciences, is to be sure of the value of a drug. When studying the poison of serpents, I found the most positive printed evidence of the certain value of at least forty antidotes. Not one of them was worth the slightest consideration. Such a fact as this makes one careful of crediting the endless cures to be read in the journals.

When you come to read over the works of the great masters, dead or living, and to see how Sydenham or Rush, Cardan or Bright, did their work, you will be struck, as I have been, with the great stress laid upon habits of living—what shall be eaten, diets, exercise, clothing, hours of work and rest. Curiously enough, these dicta are more often found in their records of cases than as positive theses; a proof that, in his practical work, a man may be better and wiser than in his generalizations. When, therefore, you come to deal with chronic conditions, be sure to learn all there is to learn as to the ways of men, their diet, clothing, sleep, work, play, wine and tobacco. I like to make a man describe to me, with minute care, his average day. Then I consider, usually, how much of what is clearly wrong may be set right by a life on schedule. After that comes the considerate use of drugs.

The desire for drugs is a remainder from barbarous times. It is much in the way of what I call natural medicine. *Do* this and do *not* do that might cover a large amount of useful treatment if men would but consider the doctor as a wise despot to be implicitly obeyed. But just here I wish to add that the very men who are most chary as to drugs are those who, at times, win splendid therapeutic victories by exclusive diets, or heroic use of powerful medicines.

Much nonsense is talked about the injurious influence of drugs until, in the very word drug, there is a malignant sound. Men used to be over-bled or salivated. This does not occur nowadays. And if I asked your whole faculty how many people they have seen permanently injured by mere medication, I fancy they might be puzzled to bring to mind illustrations of such mischief. The belief is another survival of conclusions founded on premises which perished long ago. . . .

Men in our profession fail more often owing to want of care in investigating cases than for lack of mental power. One man looks at the urine carefully once and decides; another looks once at the night and morning water and concludes; a third asks that there be made no change in diet or habits for a week, and examines the urine over and over, both the night and morning secretion. Of course, this is the only right way. Troublesome? Yes, very! If you do not want to practise medicine as it ought to be practised, better far to get some business which will permit of indolent intellectuation.

A friend of mine had a consultation in the country as to a case of great importance. The attendant fell ill and could not meet him. My friend went over the case with care. It was one of persistent headache. He took home urine of the night and morning, and wrote word that the patient had uræmic intoxication. The attendant said "No"; that neither casts nor albumin were in the urine which he had thrice examined. At last, puzzled, my friend asked if he had studied the night urine. He said "No." And here was the mischief.

I saw to-day a woman of wealth and social importance who, for years, suffered cruelly from headache. Now, as it always began after an hour of very acid vomiting, a dozen of the ablest men in Europe and America, who were led off by the vomiting, failed to take in the whole possibilities, and did not question the eyes. But a little country doctor did, and a tendon or two clipped put that woman back in a state of health. I was one of those who made the mistake, and yet I have written, was perhaps the first to write, on the eye as a cause of headaches of varied type. But to be constantly complete and exact in all examinations is, I admit, hard; nevertheless in that way lies success.

And the like axiom applies to treatment. You are taught in acute disease to write your directions and to leave no possibility of change unprovided for. And the acutely ill are prisoners of our will. But how many men think it needful to write out a schedule of life, medicine, diet, exercise, rest for cases of chronic disorder—I do not say disease. I never tire of urging that in attention to minutiæ lies the most certain success. A large practice is self-destructive. I mean that no over-busy man can continue to give always, unfailingly, the kind of care patients ought to have. But that is, as I said in my first lecture, a question of enduring energy, and of the firmly made habit of dissatisfaction with the incomplete. If medicine consisted only in mere intellectual endeavor; if to see, hear, feel, weigh, measure, in a word, know all there is to know of a case. were really all; if, then, we only had to say do this or that, one's life might be sufficiently easy.

In time of peril, or under stress of pain, any one, and always the great consultant, can secure absolute obedience. In the daily current of practice, fancy and unbelief, indolence, prejudice and what not, stand in our way. Busy men, indulged children, hysterical women are your worst difficulties. Then come into play the moral qualities which, in union with educated intellect, make for the triumphs of the great healers of their kind. Are you gentle and yet firm? Have you the power of statement, which is so priceless a gift, the capacity to make the weak, the silly, the obstinate feel as you speak that your earnestness rests on foundations of kindness, and of thoughtful investigation of their needs? Can you, in a word, make people do what you want? Have you the

patience to wait untroubled by the follies of the sick, to bide the hour when you can carry your point? Have you the art to convince the mother that the sick child is the last of all who should be left to the misery of self-indulgence? Can you sit by the bedside and gently satisfy some hysterical fool of her capacity to take up anew the reins of self-government? It demands earnestness. It means honest beliefs. It exacts such rule over your own temper; such good manners as few possess in their highest degrees of quality and quantity. Above all, it means that dislike of defeat which makes the great soldier.

A fine thing in our profession that mere hatred of defeat. As I came once out of a consultation with Prof. Gross, he said: "Don't you hate it, sir?" "Hate it; what?" I said. "Hate what?" "Oh, to spend a life like yours or mine, and be beaten—puzzled—licked, sir—by a miserable lump in a woman's breast." I always liked what General Sheridan said to me years ago. I asked how he accounted for his constant success in war. He hesitated, and then repiled: "It was because I did so hate to be licked." No matter whence comes this feeling, it is valuable. Cherish it; never lose it. Find reason for disaster, but learn to loathe the result. I never see a death or a grave failure to cure that I am not personally hurt by it. I say, then, "A century hence this will be otherwise," for as I am proud of the past of this great guild, so am I full of glad hope for its future, when it shall have learned the conquest of cancer and tubercle.

I have come again half unexpectedly, as I draw to a close, upon this grave question of the moral qualities needed for the noblest success in medicine. It would lead me, and easily, to talk of the code, of your relations to the secrets of households, to the criminal law as to witnesses, of insurance cases, and the like; but all of this I must leave unsaid, and reject the pages in which I had said something of the ethics of our profession.

You have chosen a life inexorably hard in what it asks of soul and mind and body; but be that as it may, you have taken upon you, I surely think, the most entirely satisfactory of earthly pursuits. I have seen much of men and their ways, but nothing I have seen entitles me to think there is any truer, better way of serving God and man, and in this service making yourself what you ought to be.—*From Univ. Med. Magazine.*

Mr. Radam, of "Radam's Microbe Killer," has been compelled to pay $6,000 to Dr. R. G. Eccles because he denied the correctness of the analysis of his nostrum published in the *Druggists' Circular*, and spoke of him as "quack and charlatan."—*Omaha Clinic.*

THE EXHIBIT OF THE HARVARD MEDICAL SCHOOL AT THE CHICAGO WORLD'S FAIR.

THE following is an abstract of an article by Henry P. Bowditch, M. D., in Bulletin No. 4, of the *Harvard Medical School Association:*

In contributing to the educational exhibit at the World's Columbian Exposition, the Medical Faculty has had a threefold object in view. First: by means of a series of photographs and charts, to present to those interested in educational matters a vivid and correct picture of the facilities for medical teaching which are at the disposal of the School, and a comprehensive view of the growth of its various departments. Second: it has endeavoured by the display of busts of distinguished physicians who have been in times past connected with the School, and of instruments and apparatuses marking the steps in the progress of important inventions to give the exhibit a personal and historical character which will, it is hoped, materially enhance the interest which it will awaken. Third: without undertaking to exhibit complete laboratory equipments, it has been thought well to display certain instruments, pieces of apparatuses, and methods of work which have originated in the School and are in actual use for purposes of teaching and research.

Among the charts which are exhibited, one of the most interesting is that which shows the variations in the number of students from the early part of the century to the present time.

On this chart it is easy to trace the effect of the introduction of the graded course of study in 1871. Between 1868 and 1873 the total number of students in the School dropped from 386 to 170, and the number of the graduating class from 100 to 30. Since that time there has been a steady, and of late years a very rapid increase in numbers, the catalogue for the current year showing 451 students in the School and 93 graduates at the last Commencement. The same chart also shows the gradual increase of the Faculty from 6 to 28 members, and of the instructors from 1 to 47. The lines thus exhibit to the eye a vivid picture of the growth of a medical school from very small beginnings to a state of great prosperity under the old system, by which students were turned into doctors with a minimum of expense and trouble to their instructors. This is followed by a period of reduced attendance due to voluntary abandonment by the Faculty of a defective system, the establishment of a graded course of instruction, and the requirement of a much higher standard for the degree of M. D.

Another chart represents the annual variations in the income and expenses of the School, and thus presents a picture of its financial

condition from year to year; while still another shows the increase in the number of microscopes owned by the School and used by the students, thus affording an excellent measure of the advance made in accurate methods of teaching medical science.

The group of busts will doubtless be to many visitors the most interesting portion of the Medical School exhibit, for here will be seen the forms and features of many of the men whose labors have contributed to place the School in the high position which it occupies among the medical schools of the country. Two of the three members of the original Faculty appointed in 1783—namely, Drs. John Warren and Benjamin Waterhouse—are represented in this group. Of the third member, Dr. Aaron Dexter, Erving Professor of Chemistry and Materia Medica 1783-1816, no authentic likeness can be procured. Dr. John Warren, Hersey Professor of Anatomy and Surgery 1783-1815, a younger brother of Dr. Joseph Warren of Revolutionary fame, was for nearly forty years the foremost surgeon in New England. Dr. Waterhouse, Hersey Professor of Theory and Practice of Physic 1783-1812, will be chiefly remembered on account of his bold advocacy of vaccination, which at that time had to encounter the ridicule of the profession and the public.

The other busts in the group represent:

Dr. J. C. Warren, Hersey Professor of Anatomy and Surgery 1815-1847, son of Dr. John Warren, one of the founders of the Massachusetts General Hospital, and until his death, its principal surgeon.

Dr. James Jackson, Hersey Professor of Theory and Practice of 1812-1836, during a long life a leading practitioner of Boston.

Dr. Jacob Bigelow, Professor of Materia Medica 1815-1855, distinguished as a botanist and as a writer on medical and educational subjects.

Dr. H. J. Bigelow, Professor of Surgery 1849-1882, son of Dr. Jacob Bigelow, well known for his works on the hip joint and the rapid removal of vesical calculi.

Dr. E. H. Clarke, Professor of Materia Medica 1855-1872, a successful teacher and writer on educational and psychological subjects.

Dr. H. I. Bowditch, Jackson Professor of Clinical Medicine 1859-1867, Chairman of the Massachusetts State Board of Health 1869-1879, and well known for his advocacy of the treatment of pleuritic effusions by paracentesis.

One of the most striking portions of the Medical School exhibit is the collection of bone models shown by the anatomical department. These models, which are made of paper pulp by Mr. J. H. Emerton under the direction of the Professor of Anatomy, representing all the bones of the body enlarged from three to six diameters. They are remarkable for their accuracy and for their extreme lightness, and supply to the ana-

tomical department what are believed to be absolutely unrivalled facilities for teaching osteology in a large lecture room. This department also displays a fine series of frozen sections ingeniously mounted in such a way that both sides may be readily examined, a number of corrosion preparations, some made with celloidin and others with fusible metal injections, and a series of bone sections illustrating the structure of the spongy bones.

The Physiological Department exhibits: an induction apparatus; Aplethysmograph; an electrical interrupter; a reaction time apparatus; a photograph of Dr. J. J. Putnam's pendulum myograph; Dr. F. W. Ellis's piston recorder, a substitute for the Marey drum; a set of apparatuses, of simple form and construction, designed for the use of students in studying the physiology of the nerves, muscles, heart, cilia, etc. The above described apparatuses have all originated in the Physiological Laboratory of the School. Under this department is also exhibited: a large model of the eye, designed to demonstrate to a large class the course of the rays of light in normal, myopic, and hypermetropic eyes, and also the phenomena of spherical aberration, astigmatism, the inversion of the image on the retina, and the three reflected images used in studying accommodation; a large working model of the larynx, showing the movements of the laryngeal cartilages upon one another.

The exhibit in the department of Children's Diseases represents by means of sixteen panels, each 5x3 feet, the advances which have been made in the subject of the artificial feeding of infants. The analysis of numerous good but varied human milks are given, also the analysis of the milk of cows of different breeds which are suitable for infant feeding, and the methods employed for modifying cow's milk so as to adapt it to the needs of infants of various ages and conditions. A very interesting feature of this exhibit is a new form of incubator for premature infants, the mechanism of which is in many respects decidedly novel.

The exhibit of the Bacteriological Department consists of various forms of apparatus for research which have originated in the laboratory, cultures in flasks, and drawings of organisms which have been discovered or investigated in the laboratory.

In the department of Surgery the attention of the visitor will be attracted by the exhibition of the various forms assumed by the late Dr. H. J. Bigelow's apparatus for rapid lithotrity with evacuation before it became the perfect instrument now well known to the surgical world. Here are also shown models of limbs used in the course of bandaging, etc.

The department of Otology exhibits a very fine series of preparations of the osseous anatomy of the ear, which cannot fail to excite the admiration of all those who can appreciate the amount of skill and patience required for their production.

A new form of apparatus for air analysis is exhibited by the department of Hygiene. The Warren Anatomical Museum shows several specimens illustrating methods of mounting and preparation in use in that department of the School.

Visitors to the Exposition who desire further information in relation to the School can obtain on application a phamphlet giving details of the various courses of instruction.

OUR FRIEND THE PHARMACEUTICAL CHEMIST.

DELIVERED BEFORE THE R. I. PHARMACEUTICAL ASSOCIATION BY J. FREDERICK HALLER, A. B., M. D.

THE deepest relations exist between the pharmacist and the physician. Their interests are homogenic, their training to a certain degree similar, and their professions are among the most scientific and honorable in the world.

They begin their study very much alike. The pharmacist need be, as much as the physician, an educated man before he enters upon the study of his future calling.

Most nations have decided that he should have at least a high school education, or the equivalent thereof, and in many countries in Europe he must have a college education equal to our Baccalaureate degree of A. B. before he can enter upon the study of Pharmacy. First, after the would-be pharmacist has a good all around education, should he begin the study of his profession. It is true that the boy, who years ago swept the floor or washed bottles in the corner drug store, is to-day a prosperous and good pharmacist, and many such men I see before me, who have thus worked their way up and who have done well. But I think you will all agree with me that they would have done better still had they had a better preliminary education, and this lack of education is always an obstacle in their way.

I never yet met a man, who had been unable to enjoy a general education, but that he would always regret it, and if he had a son, he was very particular that that son should go to college. So as far as I have been able to learn, a general desire for a higher education of pharmacists exists, just as we are trying to do in our profession.

Well does your worthy secretary and my esteemed associate on this Monthly say:

"Why can we not interest ourselves a little and show the other associations of this country that Little Rhody contains just as good pharmacists and men as capable of writing a scientific paper now and then, as they are?"

And here is what Mr. E. C. Danforth, Secretary of the State Board of Pharmacy, said recently before the R. I. Medical Society:

"We want to pass men who will know what they are putting up and have the best preparations."

The pharmacist is tied down to trying, hard work and long hours, and does not have time to acquire an education after he has entered the profession, and he feels dissatisfied and worries about it in after life. Having obtained a high school education, the young aspirant for pharmaceutical honors might profitably serve some time (two years at least), in some reputable pharmacy before he enters a pharmaceutical college.

This actual service in pharmacy is very useful, as here he gets an insight of practical life. Then at least two years should be spent at some good pharmaceutical college, and about that time our friend would be in a position where we could rely upon him; where he would understand his work fairly well, and he would be apt to practice his profession honorably, for the ethics he learned in college would forbid him to do otherwise; such a man would not be so apt to stoop to patent nostrums, but would rather reach out for higher pharmacy; he would view his profession from its scientific aspect, and he would believe in and join societies, in united efforts of all the best men in the profession to raise the standard of his profession; he would read and discuss papers, and from such a man original work might be expected—work that would advance the interest of his profession.

The preliminary education of the pharmacist and the physician is alike, and they often work side by side in the laboratories, but their paths soon become distinctly different. The physician turns his attention to the biological sciences, to anatomy, physics, physiology and therapeutics, and later to diagnosis history and symptoms of disease—medical as well as surgical—and devotes his best endeavors to the identification, prevention and cure of disease, while the pharmacist gives his whole attention to botany, chemistry, pharmacology, or, in short, to the gathering, preparation and use of products from the animal, mineral and vegetable kingdoms used for the prevention and cure of disease. The physician's calling is therefore entirely different from that of the pharmacist. He gives his attention to the phenomena of disease, while the pharmacist is supposed to give his attention to those means whereby disease is conquered. In other words, the pharmacist is in duty bound to furnish us pure, reliable and effective drugs, according to adopted standards, the pharmacopeia and dispensaries, or furnish us good ammunition for the guns we are supposed to know how to use. So the callings of the pharmacist and the physician are entirely different, though closely related.

It is not in a snarling, unkind temper, I say, that the pharmacist can-

not prescribe for the sick successfully—simply because he does not know how; he does not have a physician's training. For the same reason the physician cannot successfully practice pharmacy unless he has had a special training in those branches; physicians in small country places where there are no drug stores may perhaps, from necessity, be excepted, and yet I can conceive that the physician could easier become a pharmacist than the pharmacist a physician, for he has had at least a smattering of botany, chemistry and materia medica, while the pharmacist knows absolutely nothing about human anatomy, physiology, pathology, medical diagnosis, surgery and obstetrics, etc. So if this unfortunate friction between the two is to continue, it seems that the pharmacist will eventually get the worst of it. But I can conceive how the breaches in our relations can be successfully healed. A conscientious physician who endeavors to keep up with time has no time to bother himself about the business of the pharmacist, only so far as it concerns him directly.

It occurs to me that we do not want to fill our own prescriptions or give medicine, except some few things in emergency cases. What we want is this: *Keep pure, assayed and standard preparations that we can depend upon. Avoid substitution. Co-operate with physicians to expose patent nostrums and secret formulas*, and help us to have laws passed to register all formulas, or give the State Board of Health the right to analyze them, upon application.

Look upon the physician as your nearest and best friend; not as a competitor or rival, but as your best customer, whose wishes and needs it is worth your while to study and try to gratify.

About refilling prescriptions. It may sometimes be harmless and sometimes not. You may produce the opium habit from a prescription that contains opium or morphine, and you may salivate the patient, if it contains any of the mercurials, and if it contains digitalis you may kill the patient by the accumulative action of the drug, and so on *ad infinitum*. Each time you refill a prescription you wrong the physician and harm the patient, and you know that your conscience tells you that you are doing wrong. Therefore in the name of mutual fairness avoid this nefarious business as much as you can. There are grand accomplishments in store for the modern pharmaceutical chemist. We need to have the active principles brought out in many more drugs. We need the nauseating taste removed from some, and certain objectionable bulky ingredients removed from others. There is work enough, and honorable work at that in the practice of scientific pharmacy, without mixing yourselves up with the practice of medicine. If you try to meet us on these lines, which I have tried to briefly indicate, physicians will heartily do the same. I know for my part how little dependence I can place on

most tablets sold to us by the agents of tablet manufacturers. This tablet business has all come from existing dissent between pharmacists and physicians and the only way to promote mutually good and mutually advantageous relations is to meet each other half way. It is an elaborate and scientific profession to manufacture, keep and dispense drugs, and you can make it more so, and we will be glad to unite with you in such efforts. If you show more consideration for our feelings in the matter, I am quite sure physicians will show more respect for your feelings and interests. You need us and we need you.

There are careless physicians of course, as there are careless pharmacists and I admit that physicians sin very often in writing careless prescriptions and, worse than anything else, write for many of these private formulas, with which we are flooded, a few of which are good and most are not.

I seldom like to indicate on the prescription what firm's make I want, except in preparations like cannabis indica, creosote, etc., which are very hard to obtain pure. I think this should be left to the pharmacist. But if we leave the choice of make of drug to the pharmacist, he must show us that he is qualified to judge of the efficiency of his preparation, that he attends his society meetings, presents papers and discusses them, reads his journals and reports, and keeps up with times; that he is not a musty back number behind his dusty patent medicine bottles and stinking salves, but that he tries to keep pace with modern pharmacy, for our sciences are constantly advancing. You can hit us just as hard, I know, as we can hit you; we have been engaged in the business of hitting each other long enough; now let us see if we cannot begin an era of peace and good will.

There are grand opportunities for you to improve upon the new discoveries made in chemistry and biology.

The modern pharmaceutical chemist as he comes out properly prepared from our best colleges to-day, is not content with walking in the well-trod footsteps of our forefathers; he will try to go farther than that.

It pleased my heart to compare American pharmacy with pharmacy abroad. The pharmacists of no country in Europe or elsewhere are as progressive as the Americans, though they have a deeper, more thorough and larger course of training over there. In elegant elixirs, syrups, fluid extracts and tinctures, and particularly in coated pills, Americans lead the world, and nowhere in Europe is pharmacy in such a state of evolution as it is in the U. S. I was forcibly impressed with this fact while abroad last year; it is therefore unbecoming for physicians and pharmacists to be at swords' points when they both have glorious, but strictly and distinctively different paths to travel to eminence and respect, in trying to solve those great problems that rise before us every day.

We must not forget that there are other and higher aims in our professions than mere money making. There are great questions awaiting solution, gentlemen! Never before did the sciences—and particularly those sciences which deal with life and of which we are humble representatives—climb such lofty hights and push forward so mightily as just now.

Well did Lord Salisbury say before the University of Oxford, England, recently, that:

"The older sciences, whose chief food is gathered from reflection are slowly, very slowly, but still quite evidently, giving away to the sciences which rely upon observation. It is a curious coincidence and a curious fact that at this moment the whole tendency of scientific thought appears to be rapidly concentrating itself upon the fields in which medicine reigns supreme."

We rejoice to see in our brother pharmacists something more than distributors of patent nostrums and questionable secret remedies; we would delight in having you grapple with those great questions which confront us in analytical and creative chemistry, in pharmacology, in the manufacture of pure foods, drinks and drugs, in bacteriology and other biological sciences.

The present tendency of pharmaceutical chemistry is rather in the line of coal tar preparations and the greatest activity prevails here. But soon many of these coal tar derivatives with their long names and doubtful utility will go into obscurity as so many other things have done before, and pharmaceutical chemistry will resume its steady progressive march onward, in its exploration of the products of the mineral, animal and vegetable kingdoms. I may mention a few lines along which the aspiring pharmaceutical chemist may profitably expend his overflow of energy.

Industrial Micro-Organisms.—In the microscopical world lies the field of the future, says the *Southern Clinic:*

First—We have micro-organisms the cause of illness.

Second—We have micro-organisms—leucocytes—the preventive of illness.

Third—We have the product of micro-organisms—toxines—the cure of illness, and,

Fourth—We have industrial micro-organisms, which, being inoculated into poor wine juice, produce fine wines, or into inferior grades of tobacco turn out the choicest of articles in taste and aroma, not by some hocus-pocus of extraneous flavors and chemical doctoring of the wine or tobacco, but by introducing the process of fermentation to the micro-organisms, the product of which has proven to be the most acceptable; by simply recognizing, taking advantage of and directing the forces of nature.

These industrial micro-organisms, as they might be called, have not as yet been fully studied. The bare outline of the possibilities lying dormant in this field are scarcely discernible, but the promise held forth is dazzling.

Professor O. Liebreich read a paper recently at the Balneological Congress, held in Berlin, on the subject "Artificial and Mineral

Waters." He began by asking: "Is chemistry sufficiently advanced yet to produce artificial mineral water equal in all respects to the natural water?" The answer must be negative. Alizarine, indigo, urea, etc., can be synthetically produced, the artificial product being entirely identical. But in mineral waters synthesis is a much more difficult matter. Analysis in the former gives 100 per cent, in the latter less then 100 per cent; where is the remainder?

Many mineral waters on evaporation leave an organic residuum which goes by the name of glarine. It can not be affirmed with certainty that this residuum is therapeutically efficacious, but just as little can it be denied, and certainly the residuum is not contained in the analysis of the artificial mineral waters. Further, in mineral waters, carbonic acid gas occurs both free and in chemical combination. In 1882 it was discovered that carbonic acid gas forms a hydrate, that is to say, that there exist several kinds of carbonic acid gas. The presence of a carbonic acid gas hydrate had long been concluded from the existence of another combination that is a derivative of it, namely, carbonic acid ethyl, a carbonic acid hydrate, the two hydrogen atoms of which are replaced by two C_2H_5 groups; that is, carbonic acid ethyl ether. Carbonic acid ethyl is known for its agreeable taste. It is probably contained in champagne and in other alcoholic effervescent drinks. Ballo was the first to show the presence of carbonic acid hydrate experimentally.

Now there are substances which are difficult to demonstrate as such by analysis because they decompose very easily, so that only the products of their decomposition can be shown. Such a substance is carbon-oxide-sulphide (COS), which when alone shows neither the reactions of carbonic acid gas nor of sulphuretted hydrogen, but which, when for some time in contact with water, is decomposed into carbonic acid gas and sulphuretted hydrogen, according to the formula: $COS+H_2O=CO_2+H_2S$. In mineral waters at the springs carbon-oxide-sulphide occurs; the analysis shows it as carbonic acid gas and sulphuretted hydrogen.

There is a further reason for thinking that minimal quantities of substances in mineral waters may be of importance. The salt mixture forms a whole from which no part can be taken away without disturbing the equilibrium. This shows the fallacy of the old-fashioned notion that springs, the chief ingredients of which are the same, have the same therapeutic effect even though differing in some minor ingredients. There is no analysis so exact or sensitive as our senses—taste and smell. A perfume of musk in the air is perceived by the smell even though it cannot be demonstrated by chemical analysis. Even the best manufactured artificia mineral waters differ from the natural ones in taste and value. This difference is not easy to explain. It is sometimes found, however, that two mineral waters, otherwise identical, differ as regards electrical conductibility.

As to the so-called "indifferent" springs, it is a mistake to speak of them as of minor value. It must be remembered that they too contain mineral ingredients, if only in minimal quantities, which counteract the harmful properties of perfectly pure distilled water. Even hydropathy is a mineral water treatment, for if the water used were without traces of mineral substances it would be poisonous. This has been sufficiently proved elsewhere.—*Brit. Med. Journal.*

Here is a vast field for inquiry.

Dr. George T. Welch in the *Medical Record* for July 8, '93, says that in 1889 we imported into this country $13,186,290 worth of drugs used in medicine, and succeeding years have not shown a less amount.

The importations for the year ending June 30, 1892, were:

Quinia sulph	2,686,677 ozs.	Opium (nine per cent. morphia)	587,121 lbs.
Cantharides	10,446 lbs.	Rhubarb	118,874 "
Balsam copaiba	206,011 "	Salicine	5,152 "
Aloes	255,394 "	Morphia and all salts thereof	42,301 ozs.
Assafœtida	125,557 "	Calomel and other mercurial medicinal preparations	12,630 lbs.
Ipecac	38,329 "	Alkaloids and alkalies to the amount of	$827,230
Jalap	112,601 "		
Manna	49,335 "		
Ergot	125,148 "		
Cubebs	115,974 "		
Nux vomica	1,392,437 "		

A great many of these drugs can be cultivated or found in the United States, and will certainly be in the near future.

There is a great field in trying to purge our professions from patent medicines and many private formulas, and we would do well to remember the regulations that exist in European countries.

It appears from an American consular report, that the regulations of several European countries concerning patent medicines are a good deal more stringent than those of Great Britain and the United States. *In Austria-Hungary prepared medicines, whether patented or not, unless imported for druggists, require a special permit from the custom authorities.* All medicines and medical compounds are excluded from protection by the Austrian Patent law, and the sale of such is permitted only to, and in, drug stores. In Belgium, patent medicines can only be sold by apothecaries or other authorized persons, and must bear the seal of the seller, who assumes the responsibility of the product. In Denmark the sale is confined to apothecaries. France entirely prohibits the sale of secret medicines unless they are approved by authority and the formula is inserted in the official formulary. So does Sweden. In Germany all proprietary medicines must be retailed by a regularly sworn and licensed apothecary, who is responsible for their effect on the patient; but the most serious restriction is the prohibition of advertisements of medicines in public journals when such medicines are made by a secret formula or process. This law is regularly enforced in Baden and Prussia, but less stringently so in Wurtemberg, Bavaria, and some parts of Northern Germany, while in Saxony the authorities exercise the right of prohibiting the sale altogether. In Italy the composition of a patent medicine must be approved by the board of health. No patent medicine is allowed entry into Russia, unless special permission is, on each occasion, obtained from the Medical Department of the Minister of the Interior. If, after careful examination, it is proved that the production of such medicine requires elaborate work and expensive apparatus, it is allowed entry subject to a duty, provided such medicines are regarded as beneficial and are compositions durably preserved.—*Medical Record.*

We owe much to pharmaceutical chemistry and our elegant, convenient drugs of to-day and the small quantities we now give to produce good effects are mostly all due to the labor of untiring investigators in your profession, achievements of which our ancestors never dreamt, but the good work must go on. In order that pharmaceutical chemists in Rhode Island and in the United States should be truly worthy of their

professions, they must first learn what our forefathers have done; bring their knowledge up to date, and begin where our predecessors left off. This is what all great men call knowledge. But we must first raise the standard of the men who engage in the profession and make it so respectable that even the college-bred man will find it attractive.

This century exacts great requirements of preliminary study from all professional men, pharmacists included, and a good education places a man in the right position socially, and is the only true foundation for future eminence. At the International Pharmaceutical Congress in Brussels, in 1885, it was suggested that "Pharmacists should have the same preliminary education as physicians (the Baccalaureate)."

The Pharmaceutical Association of Germany has recommended that the Baccalaureate examination be required as a qualification for entering upon pharmaceutical study.

In France the same requirements have been made a law by the decree of July 25, 1885.

In Austria the requirements are very nearly the same.

In England the equivalent of a high school education is required of pharmaceutical students.

In the Scandinavian countries the requirements are the same and an effort was made at the recent Congress of Natural Sciences at Copenhagen last year to require of pharmaceutical students a college degree (the Baccalaureate) which is likely to be soon adopted. I am glad to see that many of our own American pharmaceutical colleges are raising their requirements of preliminary study. *Dr. Keen* in his recent address before the Phi Beta Kappa Society of Brown University mentioned the fact that "the chance among ordinary professional men of becoming famous is $\frac{1}{300}$ while among college bred men it is one in six who become famous.

Chauncey Depew, in an address delivered before the G. A. R. of Rhode Island, at the annual encampment a few years ago said:

> Whatever success I have had in life, whatever pleasure I have got out of life, has come from the fact, that my old Dutch father gave me a liberal education in a Yankee College. I know of no better endowment, no nobler avenue to success than to obtain all the education that the country affords.

Prof. Banks, of the University College of Liverpool, England, contended, in an address delivered before the Medical Society of London recently:

> That in the love of good books was to be found the rest and comfort to be obtained nowhere else. If the love of letters were lost during the student period, it must be regained. Every wise man felt in his heart, that, if he lived sufficiently long, a time would come when ambitious toil and money-getting labor would cease to satisfy.

I remember the discussion in the *N. Y. Tribune* some years ago

between Mr. Andrew Carnegie of Pittsburg and others, where Mr. Carnegie mentioned that "the boy who swept the office and worked his way up, became a better business man than the college bred one;" this statement was refuted, however, most powerfully by leading men, and in evidence of the above facts this statement does not bear criticism.

In closing let me say that the pharmacist with a liberal education is the hope of the future. He may or may not be a Maisch, a Wilthaus, a Woods, a Shoemaker, a Remsen, an Oldberg, etc., but there is not only plenty of room on top, as *Daniel Webster* said, but there is plenty of room next to the top and "it is no crime to fail" (for continued failures should be the stepping stones to success), "but it is a crime to aim low."

Science needs many faithful workers and the more of nature's phenomena we unravel, the more problems rise before us—awaiting solution—and never before in the history of the world did our sciences rise to such an importance, usefulness and the object of respectful inquiry on the part of the laity as they have to-day. I am glad that we have some questions to settle, some problems to solve, some differences to adjust, and some mutual grievances to ventilate; the day we have no questions, problems, differences and grievances to settle we will no longer be inquiring scientists, for there will be nothing left to inquire into, no problems to solve, and as there will be no grievances to keep up a lively interest, we will be too good for this world, too angelic, too perfect.

We have the highest regards, gentlemen, for you collectively and personally; all we delight in seeing is, that you make the same efforts in raising your profession to a high standard, as we are trying to raise ours, and our noble university on the hill, Brown University, will I am sure, assist you in arranging classes, or courses of study, as it has already in Botany. We are surrounded by stimulating educational institutions, and it behooves us as professional men to bestir ourselves of the great advantages for intellectual culture we have right here in our midst. You gentlemen must understand with Hiawatha the "whisperings of the pine trees" to the "lapping of the water," and if you seek, you may find, in the simplest little plant along the roadside, a remedy that will cure consumption and many other ills, and we expect you to help us look for it, and as sure as I stand here before you we will find it some day, for as God has saved many thousand women in child-bed from death, by revealing to us antiseptic remedies, and many people in operations from pain by the discovery of anesthæsia, and manifold other blessings of science, so will He point out to us some day—greater wonders and more magnificent discoveries than the world ever knew. So come, let us reason and work together.

MANUFACTURE AND TESTING OF PEPSIN.

By C. H. DAGGETT, Ph. G.

PEPSIN, from the Greek word "pepto", I digest, the peculiar digestive principle of the stomach, is one of the most important drugs with which we have to deal, and one upon which chemists have experimented for years. It was discovered by *Schwann* in 1836, in the gastric juice, and three years later *Wasmann* and *Papenheim* succeeded in extracting it. *Corvissart*, the body physician of Napoleon the Third, introduced it into therapy in 1854. *Fairchild* claims the introduction of scale pepsin into this country. The chemical formula has never been discovered. The stomach is the most important digestive organ in the body and when from sickness or disease, nature fails to provide this valuable digestive ferment, pepsin has to be administered and should be given as pure as it is possible to get it, and of a high digestive power. The substances which comprise the food for the human body I have found best classified by *Parke, Davis & Co.*, of Detroit, and also their tabular arrangement of the results of digestion as follows:—

(a) Mineral substances, a certain portion of which are necessary constituents of the blood and tissues.

(b) Carbo-hydrates, such as Starch, Sugar, Dextrin, etc.

(c) Fats, such as butter and lard, also vegetable oils and fats generally.

(d) Proteids, such as albumen, both vegetable and animal (animal albumen may be either egg or ova-albumen or serum-albumen), and fibrin.

(e) Bone or its constituents, properly belonging with the exception of gelatin, under the head of mineral ingredients.

(f) Water.

RESULTS OF DIGESTION.

CLASS OF FOOD.	ACTION OF SALIVARY FERMENT.	FINISHED RESULT BY PANCREATIC DIGESTION.
(a) Starch and amyloids; (b) Cellulose, sugar and carbo-hydrates;	Maltose and dextrin, partial transformation usually;	Glucose;
(c) Albuminoids;	Syntonin and peptones;	Peptones;
(d) Albumen and fibrin;	Syntonin and peptones;	Peptones;
(e) Casein;	Metacasein;	Peptone;
(f) Fats;	Not appreciable unless the production of an acid condition contributes to or facilitates emulsification;	Mechanical division or emulsification.

The most important part of the process of digestion is the conversion of proteids into a soluble form in which they may be easily assimilated.

Pepsin is an albuminous principle secreted by the glands imbedded in the inner coating of the stomach. It is a colloid (not diffusible and will not permeate through animal membrane). In solution it is destroyed by alkalies, strong alcohol, metallic compounds and by boiling. It is active only in the presence of an acid, preferably hydrochloric acid, because it is associated with that acid in the gastric juice, but will also act with both mineral and organic acids, tartaric, lactic, etc. According to *Fairchild*, it has no milk curdling property, and whatever milk curdling action a preparation of pepsin may show is due entirely to the true curdling ferment associated with it, which is a distinct principle contained in the gastric juice. Many of the pepsins of commerce contain peptone, salt, sugar, gelatin, hydrochloric acid, starch, etc. Peptone is objectionable because it renders the pepsin hydroscopic and liable to decomposition.

The old process of making pepsin, as suggested by *Dr. Lionel Beal*, consisted in taking the inner coat of the fresh pig's stomach, and after well washing and cleansing it, scraping with a blunt knife, and drying the viscid liquid so obtained on glass plates, afterward treating it with benzol, ether or chloroform to extract fat, again drying it and reducing to a fine powder. A pepsin prepared by this process is sparingly soluble in water and contains fat, mucous, etc., making it very impure. The process used quite extensively at the present time with modifications of various manufactures, is that of *Scheffer*, as follows: The inner coatings of the fresh pig's stomach which contain the greater part of the peptic secretion, are stripped off and passed through a mincing machine; it is then macerated in water, acidulated with hydrochloric acid and allowed to stand over night. Next morning, after stirring thoroughly, they are strained through canvas bags. After draining, the liquors are saturated with salt (added quickly and all at once), stirring long enough to dissolve the salt, and as soon as the pepsin begins to rise in flakes discontinue stirring and allow the pepsin to collect upon the surface, let stand undisturbed until morning; then remove the pepsin to a strong straining cloth, allow it to drain for one day and then press in a strong double cloth. Take out of the cloth after pressing as dry as possible, crumble up, place in shallow trays and dry at a temperature not higher than 100° F; when dry, coarsely powder, treat with benzol, ether and chloroform to remove all fat, again dry and reduce to a fine powder.

Scale pepsin is usually made by separating the inner coating of the pig's stomach, washing free from blood and mucous, freed from fat and chopped very fine. It is then digested in distilled water acidulated with hydrochloric acid at about 100°F, stirring all the while. It usually takes about six hours. The mixture gelatinizes but after continuing

the digestion and stirring, it breaks up, becomes thinner and the separated matter is allowed to settle. It is evaporated to a clear liquid having the consistence of syrup and spread on glass plates and scaled. The so-called crystal pepsin, for the production of which *Carl Jensen* has a patent process, is probably prepared in the same way, only instead of scaling, allowing it to dry in thick sheets and breaking up.

Pepsin in scales is of a light yellowish brown color, having a faint odor, but not disagreeable and a slightly saline taste without any indication of putrescence. It is soluble to a very small degree in water or spirit. The powder is nearly white. The digestive power of good pepsin should be 2,000 times its own weight. An aqueous solution of pepsin will decompose in a short time; after the addition of sufficient hydrochloric acid, it remains clear, but gradually loses its effect on albumen. Glycerine is a great preservative of pepsin and will keep it for an indefinite length of time.

I have tried many of the different schemes for testing pepsin and find the process of the National Formulary to be very reliable and my tests have been made by that process, as follows:

1. Preliminary Assay.—Prepare an acidulated water by mixing 1 liter of distilled water with 5 gm. of hydrochloric acid; mix 0.1 gm. of the dry and undiluted pepsin with 0.9 gm. of sugar of milk, by thorough trituration in a wedgewood mortar. Weigh of this mixture four portions of (a) 0.05, gm., (b) 0.06 gm., (c) 0.1 gm., (d) 0.2 gm., respectively; place each portion in a wide mouthed flask or bottle of the capacity of about 200 cc. together with 80 cc. of the acidulated water, previously warmed, and set the flasks in a water-bath, the temperature of which is maintained constantly at 51.6° C. (125° F). After twenty minutes, add to the contents of each flask 10 gm. of hard boiled egg-albumen, prepared by boiling fresh eggs for fifteen minutes, then separating the whites and rubbing this through a clean hair sieve, having 30 meshes to the linear inch. Each portion of 10 gm. of egg albumen is to be put into a small warmed mortar, triturated with a portion of the fluid from one of the flasks, the mixture then transferred to the latter, and the mortar rinsed with 20 cc. of warmed acidulated water which is added to the contents of the flask. Keep the flasks in the water-bath for sixty minutes, shaking well at intervals of five minutes, and at the end of that time note the condition of the egg albumen in the several flasks. If the pepsin is of good quality, not more than a few undissolved flakes should remain in any, but the first flask (a). If more than this remains in the fourth flask (d), the pepsin should be rejected as being below the requisite standard.

2. Actual Assay. Having thus ascertained the approximate digestive power of the pepsin, and having found this to be of satisfactory strength,

make at least two assays, in precisely the same manner as just described, but using such a proportion of egg-albumen that about one-fourth of it will remain undissolved at the close of the experiment. Then add to the contents of the flask, 3 gm. of finely scraped and purified asbestos, previously dried to a constant weight, and afterwards add 100 cc. of cold distilled water, shake the flask strongly, until the asbestos has clarified the liquid as far as possible, then transfer the contents of the flask to a tarred filter (deprived of matters soluble in hydrochloric acid) wash the residue with distilled water, until the washings cease to affect a test solution of nitrate of silver acidulated with nitric acid, and dry the filter with contents at a temperature of 105° C. (221° F.) to a constant weight. From this deduct the weight of the filter and asbestos. Multiply the remainder (representing the undigested and dried albumen) by 7.5 to find the quantity of moist egg-albumen to which it corresponds, and deduct the product from the amount originally used to ascertain the proportion dissolved by the pepsin.

NAMES OF BRANDS TESTED.	PHYSICAL PROPERTIES.	ACTIVITY CLAIMED: ONE GRAIN WILL DISSOLVE —— GRAINS OF EGG ALBUMEN.	ACTUAL COMPARATIVE ACTIVITY
Sharp & Dohme's,	Small semi-transparent, soluble scales; no disagreeable odor.	6,000.	4,500.
Parke, Davis & Co's.,	Semi-transparent scales, soluble.	4,000.	2,800.
Fairchild's,	Opaque scales, slight putrefactive odor, amber color, partially soluble.	2,500 in four hours.	2,000.
Armour's,	Light amber colored scales, slight fatty odor, soluble.	2,500.	1,800.
Wyeth's,	Yellowish granules, partially soluble.	2,000.	1,500.
Jensen's,	Reddish brown crystals, putrefactive odor, hydroscopic.	700 to 1000 in a few hours.	500.
Boudalt's,	Light colored powder, partially soluble.	——	250.

Pepsin is used principally by physicians in cases of indigestion in doses of from 2 to 10 grains.

The saccharated pepsin of the U. S. P., 1880, contains 5 per cent. of pepsin and 95 per cent of sugar of milk, and is given in doses of from 5 to 30 grains.

In another article I will continue the work on pepsin and try the different methods of testing according to their relative value.

[TO BE CONTINUED.]

HYGIENE.

THE FILTRATION OF PUBLIC WATER SUPPLIES; ITS RELATION TO CHOLERA.

CHOLERA TO BE CONSIDERED PRACTICALLY AS A WATER-BORNE DISEASE.

PROFESSOR KOCH has published an elaborate and very valuable essay on the effect of filtration on polluted water, with special reference to cholera.*

After guarding himself against the statement attributed to him to the effect that cholera can only be disseminated by water, and stating that it is occasionally transmitted directly from man to man or by other means, he points out the fallacy of the view of those who maintain that cholera is propagated by some mysterious condition of the soil or air. or spread habitually by those other means which he admits to be operative occasionally.

ALTONA PROTECTED BY FILTRATION IN 1892.

He points out that the epidemic in the summer and autumn of 1892 affected severely Hamburg, but almost entirely spared Wandsbeck and Altona. The three towns form practically one city, but Wandsbeck obtained its water supply from a lake little liable to fæcal contamination, and filtered the water, while Altona and Hamburg drew their water from the Elbe. The water for Hamburg was drawn from the river above the town at a point where it was relatively pure, while Altona took water lower down where the river was very much fouler, owing to its having received the drainage of Hamburg. At Hamburg the water was delivered for consumption unfiltered; whereas at Altona it was filtered efficiently, and during the epidemic of 1892 Altona escaped almost entirely the visitation of cholera; 500 cases occurred there, but as to 400 it could be shown that they were imported from Hamburg, or had been contracted more or less directly owing to the business communications. One group of workmen's houses in Hamburg was completely spared by the epidemic. This group, and this group alone, was supplied with water from the Altona supply. The only other building in Hamburg supplied by the Altona water was a brewery.

*A French version appeared in the *Semaine Medicale* of June 21st. The German text is published in the *Zeitschrift f. Hyg. u. Infections-krankheiten.*

Since the only difference which could be traced between the conditions under which the inhabitants of Hamburg and Altona were placed was the fact that the Altona water was carefully filtered, it was possible to set aside all cosmic and telluric influences, and all theories as to subsoil water and social circumstances. The value of filtration was brought out in the most striking manner.

PARTIAL FAILURE IN 1893.

In 1893, however, cases of cholera occurred in Altona, and inquiry showed that they were in all probability due to the water supply, and certain cases occurred in the St. Pauli district of Hamburg, which had recently been supplied with Altona water. It appeared, therefore, probable that something had occurred to diminish the efficiency of the filtration carried out at the Altona waterworks. The investigations made brought to light certain facts which are of great importance owing to the light which they throw on the general principles which govern the efficiency of sand and gravel filters.

THE NEED FOR BACTERIOLOGICAL EXAMINATION OF WATER.

Professor Koch expresses in very decided terms the opinion that the only trustworthy test of the efficiency of filters, and of the freedom of drinking water from disease-producing qualities, is that afforded by the application of well-known bacteriological methods. Filtration is designed to remove particulate poisons, and chemical analysis, which deals only with soluble poisons, can give no information as to the efficiency of filtration. The method of extracting such efficiency by observing the variations in the colour of a long column of water gave more trustworthy results. Bacteriological examination, the counting, that is to say, the number of microbes in a given quantity of water by means of plate cultures, alone yielded accurate numerical results.

THE PROCESS OF FILTRATION.

The process of filtration is then described. The impure water run into the filter deposits on the surface of the sand a layer of slime, by which, in fact, the suspended matter in the water is arrested. In order, therefore, that filtration should be efficient, the layer of slime must form uniformly; it must not be disturbed during filtration, and it must be removed periodically when it has become too thick, and consequently not sufficiently permeable. The rapidity with which this layer of slime is formed varies directly with the quantity of mineral and vegetable substances contained in the water. With water containing much suspended clayey matter the layer may be formed in eight hours, whereas

with water, the impurity of which is due chiefly to vegetable matter, twenty-four hours may be necessary. During the warm season the quantity of vegetable matter is high, and consequently the layer may become impermeable in a few days. Experience had shown that to obtain potable water of pure quality, the thickness of the sand filter must not be less than 30 centimetres, and the water must travel through it at the rate of about 100 millimetres an hour. The colour test showed that filtration failed when these two conditions were not fulfilled.

Bacteriological examination confirmed generally the conclusions drawn from the colour test, but had brought out the importance of the temporary defects in the filters due to disturbance of their surface or other causes. With filters acting properly it was possible to obtain water which never, under any circumstances, contained more than 100 living microbes in 1 cubic centimetre of water. During two years, beginning in the summer of 1890, the Altona water had been examined bacteriologically every week; the number of microbes in 1 c. c. was, as a rule, 20 or less, occasionally it was 50 or 70, but, with the exception of one short period in 1891, it had never exceeded 100. The ratio was at once affected by any disturbance of the filters and any acceleration of the rate of filtration.

THE SOURCE OF THE MIRCOBES IN FILTERED WATER.

When a filter bed is working well, the greater part of the small number of bacteria in the filtered water come, in Professor Koch's opinion, from the lower layers of the bed, the layers of gravel and shingle which, like all other surfaces continually moistened with water, become covered with microbes after a certain time. These aquatic microbes are innocuous. Fraenkel and Piefke, however, had shown that a small proportion of the microbes in filtered water were derived from the original water. Taking the data of a depth of 30 cm. of sand, and a rate of 100 millimetres an hour, which was the limit of practical filtration, it appeared that a certain proportion of microbes in the unfiltered water got through into the filtered water; but the number was very small, and the experience of Altona showed that there was little or no danger in using this water. The protection afforded by filtration "is not absolute, even under the most favorable conditions, but it can be made sufficient for practical purposes."

TYPHOID FEVER AS AN INDEX OF DEFECTS IN WATER SUPPLY.

Typhoid fever and cholera were the chief, if not the only, diseases habitually spread by water; and a study of the epidemic prevalences of typhoid fever would afford indications of defects in the water supply. Altona was liable to outbreaks of typhoid fever which presented certain

peculiar features. Spiegelberg had shown that these outbreaks were preceded by periods during which the number of microbes in the filtered water was very high, and Wallichs had pointed that epidemics of typhoid fever broke out after every period of more or less prolonged frost.

DEFECTS IN FILTRATION IN SUMMER AND WINTER.

Early in 1893, cases of cholera began to occur in Altona while Hamburg was quite free, and it appeared probable that a few cases which occurred in Hamburg derived their infection from Altona. This occurrence immediately recalled the observations made in previous years as to the outbreaks of typhoid fever after frost, and their relation to an increase in the number of microbes in the filtered water. A systematic bacteriological examination of the water delivered to the inhabitants of Altona had been begun in October, 1892. A temporary increase in the number of microbes was found in the first week of December, but on December 30th the number began to increase, again reaching a maximum of 1,500 on January 12th; then there was a decrease, succeeded by another rise, which reached 1,400 in the last week of January. It was clear, therefore, that the filters were not acting properly, and it was resolved to proceed to a bacteriological examination of each separate filter, of which there were ten. A table is given of the results of these examinations for the month of February, from which it appears that the efficiency of the different filter beds varied very greatly, but that these might be entirely obliterated when the mixed water from all the filter beds was examined owing to certain filters acting particularly well. A further fact was brought out that the cleansing of the filters was followed by a period of several days to a week during which the filter did not act efficiently. The renewal of the sand caused a still greater deficiency in filtering power, which lasted for a longer period. One filter bed was conspicious for its imperfect action at the beginning of February, and this, on examination, was found to be due to the fact that the surface had been exposed to frost; this had rendered the bed at first impermeable, but by degrees water began to pass through it, not apparently uniformly through the whole surface, but through certain points which had thawed. In consequence, though the filter as a whole was acting slowly, the rate of filtration through the parts which were permeable must have been very rapid. In summer also filters were rendered quickly impermeable by the accumulation of a thick layer of slime derived from vegetable materials. These two facts showed the importance in every filtering station of making the various filters independent of each other, so that the water of any bed which was temporarily out of order might not be sent into the

supply. To ascertain when a filter was acting efficiently, reliance should be placed only on the results of bacteriological examination. Professor Koch also gives an account of the circumstances under which the filter beds of the lunatic asylum at Nietleben near Halle broke down. They fully confirm the observations made in the previous paragraphs.

CONCLUSIONS.

His general conclusions are:

1. That the rapidity of filtration ought never to exceed 100 millimetres an hour, and every filter should be provided with an apparatus for measuring and regulating the rapidity of filtration.

2. While in use, the water from every filter bed ought to be submitted daily to bacteriological examination, and arrangements should be made for obtaining samples of water at the outlet from each filter.

3. Filtered water which contains more than 100 living microbes in the cubic centimetre ought not to be allowed to pass into the reservoir of filtered water.

For the purpose of bacteriological examination of filtered water gelatine plates, maintained at a temperature of 22° C., should be employed, but it might be possible, if necessary, to shorten the time by using plates of agar maintained at a temperature of 37° C.—*British Medical Journal.*

A KEELEY CURE.

The siren of the flowing bowl,
With rose-red lips and magic fell,
Long years ago about the soul
Of young Augustus cast her spell.

She lured him on from bad to worse
Till he was in a grievous plight,
And friends to rid him of the curse,
Sent him a year ago to Dwight.

And there bi-chloride's golden lash
Was laid about him day and night—
Ah, well, he doesn't need the cash
He crowded in the slot at Dwight.

He'll ne'er regret he let it slide,
He'll never want his boodle back—
In a fit of "snakes" last week he died,
A raving dipsomaniac.

—*Tommy Dod in Medical Age.*

The Monthly has received a goodly number of subscribers from Connecticut since its last issue.

OPHTHALMOLOGY.

CLINICAL OBSERVATIONS ON TROPACOCAINE IN OPHTHALMIC PRACTICE.

By GEORGE FERDINANDS, M. D., C. M.,
ASSISTANT TO THE OPHTHALMIC SURGEON, ROYAL INFIRMARY, ABERDEEN.

AFTER reading Dr. Chadbourne's valuable and concise paper* on the synthetical hydrochlorate of tropacocaine, I obtained, with some difficulty, a small sample. The following brief clinical observations were noted by me during a period of six months. Solutions of various strengths were used, thus—1, 2, 3, 5, and ten per cent. The installation of one drop of a 2 or 3 per cent. solution (there being not much difference between the two) caused complete anæsthesia of the cornea in two minutes. But, for the removal of small foreign bodies, the cornea was always sufficiently insensible in about thirty seconds. Hardly any smarting or discomfort was felt, and that only momentarily. There was no hyperæmia. The conjunctiva, especially the palpebral portion, was slower in becoming anæsthetised, but it appeared to retain its insensibility for a longer period. Sensation gradually returned in from ten to fifteen minutes. This depended, no doubt, on the size of the drop instilled into the eye and the amount that escaped from it. A 1 per cent solution within a few minutes gave sufficient anthæsthia to remove foreign bodies, but sensation returned early; and although repeated instillations completely anæsthetised the cornea and conjunctiva, the solution was discarded as unsuitable. A single instillation of the 5 per cent. solution rendered the cornea and conjunctiva completely insensible in a minute and a-half, but superficial anthæsthesia of the cornea was produced so rapidly that in five seconds it was insensible to the touch of a camel's hair brush. The anæsthesia lasted from fifteen to twenty minutes. A drop of the ten per cent. solution caused insensibility of the cornea within a few seconds, but it also gave rise to considerable injection, which remained for a few hours. At the end of the half-hour during which the patient was under observation, the anæsthesia still remained complete; unfortunately its full duration could not be recorded. Next day the patient stated that an hour after he left a pain set up in the eye, which kept him awake the whole night. He described it as acute and extending to the back of the head, and frequently darting up to the brow. These statements made me chary of

* *British Medical Journal*, August 20, 1892, p. 402.

using the strong solution any further. Besides, there was no need for so concentrated a solution, as the 5 per cent. gave every satisfaction whenever rapid anæsthesia of the deep-seated parts was desired. The 3 per cent. solution was most frequently employed. Below are a few instances in which tropacocaine was used.

Eyelids and Conjunctiva.—Meibomian cysts were painlessly incised and scraped. In cases of muco-purulent ophthalmia requiring the application of a strong solution of nitrate of silver a drop of tropacocaine prevented the after-smarting which usually follows that operation. Cocaine, as a rule, is less effective when the conjunctiva is inflamed. But tropacocaine does not appear to fail in this respect, neither did its continual use produce that sodden appearance of the conjunctiva which is frequently the case with cocaine. In entropion of the lower lid requiring the removal of a piece of skin, and in other operations about the lids three drops of a 3 per cent. solution injected subcutaneously at the spot made the operations painless.

Cornea.—Ulcers were painlessly cauterized. Needlings were also satisfactorily accomplished without pain. In cataract operations, with and without iridectomy, no pain was felt, three instillations of a 3 per cent. solution being used. A single drop of a 5 per cent. solution rendered the excision of a portion of prolapsed iris painless. The same solution gave satisfaction in an iridectomy for glaucoma.

Nasal Duct.—Canaliculi were slit up without pain, and the injection of a few drops of a 3 per cent. solution down the duct rendered otherwise painful probing tolerable.

Strabismus.—A single drop of a 5 per cent. solution produced sufficient anæsthesia of the muscle. Some minutes were usually allowed to elapse between the instillation and the operation. The 3 per cent. solution required several instillations.

CONCLUSIONS.

1. Tropacocaine is more reliable and deeper in its action than cocaine, and the anæsthesia it produces lasts a little longer. Unlike cocaine, it anæsthetises inflamed tissue—at least, more deeply than does that salt. There is complete absence of the haze over the cornea which is so characteristic of cocaine anæsthesia. This was specially appreciated when needling. The strength of the solution depends on the requirement. For general use 2 or 3 per cent. is sufficient and a 5 per cent. solution may be used with safety when anæsthesia of the deep-seated parts is required.

2. Solutions of tropacocaine made with distilled water keep well and retain their strength for months. One solution (3 per cent.), prepared

in January last, although now a little cloudy, has not lost its activity, So far no fungus has been noticed growing in the solutions.

3. With the exception of the one case mentioned in which the 10 per cent. solution was used, tropacocaine gave rise to no disagreeable symptoms. It practically has no mydriatic action; neither is it hæmostatic. But it certainly did not give rise to "intense hœmorrhage," as was the experience of Seifert.*

I am inclined to think that cocaine will eventually be replaced by tropacocaine when its advantages are fully understood. Even if it were only for its antiseptic properties, the new anæsthetic should be given the preference. The price is not prohibitive, and increased demand will place it within the reach of all.—*British Medical Journal.*

EXPERIENCES OF AN ARMY SURGEON.

AN ADDRESS BY CHARLES O'LEARY, A.M., M.D., BEFORE THE SOLDIERS AND SAILORS HISTORICAL SOCIETY, MARCH 20, 1893.

REPORTED BY DR. GEORGE B. PECK, SECRETARY.

BEFORE entering upon the duties of a Medical Officer, I will make a few remarks upon the life of an Army Surgeon, what it is and what it is estimated at. The life of an Army Surgeon, no matter how great his services may be, never presents the same stirring interest or even wins the same admiration as that of a commanding officer, who acts a conspicuous part in the field of battle. The general is valued for his bravery and guiding skill. There is no thought given in the accounts of battles to the health protecting surgeons, and whatever the work of the officer may be, which does not bring him into public view, these qualities mentioned will find no place in the subsequent history of the war.

The public gaze does not penetrate beyond the fierce conflict, nor look beyond the glory of the victory. It is the general commanding and the gallantry of the troops and officers and privates that have accomplished it; the medical department has no place in it.

The skill that has been the efficient agency in giving that vast complicated engine of force, known as an army, its strength, its vigor, its robust health, are not counted among the agents of success.

The medical department organizes and transforms a demoralized army into a robust, gallant and high-spirited army; it follows the soldiers through all the routine and hardships of camp life; through march, through bivouac, and is present beside them in battle to preserve their lives, and to heal their wounds. This work finds no place in the stirring descriptions of battle.

When we take into account that the greatest mortality to armies in wars of long duration results from disease and not from conflict of battle, it becomes evident at once that without skill and sanitary supervision the efficiency of the army is undermined.

Despondency takes the place of hope, laggardness takes the place of gallantry, and cowardice the place of bravery.

* *Internat. klin. Rundschau,* No. 8, 1893.

When an entire army is thus affected, as it will be by sickness and low vitality, its fighting strength is lost. But substitute health for sickness, and its bravery will at once reappear, and this is the work that falls to the medical service and when successfully accomplished should entitle it to a full share in the glories and triumphs of the army. And that this great work was successfully accomplished, not once, but several times in the history of the Army of the Potomac, I hope to give you proofs of in the remarks I am to make.

THE EXPERIENCES OF AN ARMY SURGEON IN CAMP.

You will excuse me if I have sometimes to use the personal pronoun; I have to follow my own experiences in order to give you the history of a surgeon's life as far as I have seen it. It was in July, 1861, when I received an order from the Secretary of War—where it originated I did not know. I was in Cincinnati attending the hospital and teaching young physicians who wished to enter the army.

I complied with the order, was ordered to report to the Surgeon General, who was a venerable man, and was told by him what my examination was, and that I would hear from him where to report. In September I got the order to report in Washington, and after I arrived there, being paid $75, for traveling from Cincinnati to Washington, I was ordered to report to General Couch, who was then encamped outside of Washington towards Maryland.

The lines were then extended around the south side of Washington, but we were on the north side. I had reported, according to orders, to General Couch, who was praised by every officer who ever knew him as a most untiring, modest, courageous and brave officer, as he distinguished himself afterward. He received me most graciously. He commanded a brigade composed of one of your Rhode Island regiments, the Second Rhode Island, the Seventh Massachusetts, the Tenth Massachusetts and the Thirty-sixth New York. These regiments were officered in the medical department by the most competent surgeons. They had a colonel, a great soldier, David Russell, one of the greatest soldiers of the war.

We had in the Second Rhode Island Colonel Wheaton, and we had in the Tenth Massachusetts, Colonel Briggs. In the Thirty-sixth New York we had a man who served in the Mexican War, thinking he was a superior soldier, but he proved not to be such. The regiments were well officered both in the field, in the line, and in the medical department. I entered then, utterly ignorant, I might say, of all the duties of an army surgeon. I was lucky to come under General Couch. He, ever since the first day I joined his brigade until the last day when we parted, acted almost as kind as a father would to a son.

He was an officer in the Mexican War, and gave me all the instructions I could have in regard to my department, never finding fault, always encouraging. While we remained here our duties were not very heavy, but constant. I had very little to do to superintend what hardly needed superintendence. The officers did their work thoroughly. Their regimental hospitals were in the very best condition.

The old army consisted of 12,000 men and medical officers amounting to 120. No one of these had ever served with a regiment, unless the few that had been in the Mexican War. But they understood the routine of business, that is, what you might call the "red tape" of business. Trained to this dead, narrow routine in this narrow sphere, the surgeon of the old army, or better, the *old surgeon* of the old army, could not change. He could not comprehend or grasp any other method except the one he had practiced. I recollect one instance which will serve as an example and illustration of many.

The evening after the battle of Seven Pines and Fair Oaks, when our wounded were gathered into the shelter of such hospitals as we had and surgeons were busy with

the utmost efforts to make them comfortable, one of these surgeons, I may say old, arrived with orders to supervise the work at the hospital and the care of the wounded; the first surgeon he met was the regimental surgeon of the 37th Massachusetts, who was then busy at work. This old veteran claimed the respect due to his authority. He first demanded of the regimental surgeon, then attending to a wounded man his notes of the case. The surgeon looked upon him with astonishment. The veteran asked him where his book and pencil were and added: "Don't you know these are most important to have in hand, to take notes of each case?" The surgeon replied "Hell, I don't. The most important thing is to dress the wounds of our wounded and give them nourishment and alleviate their sufferings; these are our men, we take care of them and you can take your notes if you want them; they don't relieve the men."

This interview spread rapidly among the surgeons attending the wounded. The veteran, clothed with authority, dared not approach another surgeon. Ridicule was openly expressed and followed his steps. He found it best to ask to be relieved of his important duties and escape the derision his incompetency merited. He was relieved and sent to some easy post at Detroit or Boston, where no sound of battle reached him; and this was the way that most of them were finally disposed of. The active work of war was left to the volunteers and the younger men of the regular army. They sent out their orders which were complied with. Our business was day by day to see that every part of the regiment was thoroughly inspected and thoroughly examined. The hospitals were regimental. We had no organization of any kind, except a regiment.

The surgeon's duty in the morning was to have the surgeon's call. Those who were sick or pretended to be sick we examined, and those who were sick, we sent to the hospital and they were well taken care of. We had constant journeys between the camp and Washington. We had drills constantly. The time spent there from September until we marched was of course complained of much by the country, and the cry was, "On to Richmond!"

While it was not time uselessly spent, it requires a long time to organize an army, and from that time on there was no relaxation of duty in the way of dress parade, no time lost, and the time spent enabled the surgeons to acquire a certain mastery of their duties in the way of having to keep their work going on properly.

We had very little sickness. I may remark here that the sickness of regiments leaving the cities was much less than the sickness of regiments coming from the country, that is, a regiment leaving the cities has much less sickness than a regiment like the Tenth Massachusetts which left Pittsfield. So that those who left the city were much better able at first to bear whatever you may call the hardships of the camp, than those who came from the country.

Those from the country were most subject to colds and sometimes measles, and those from the city were not. We had very little of battles and the only one we had during the time was that of Ball's Bluff, when Stonewall Jackson went up into Maryland.

By the end of March we broke up camp and moved to Fortress Monroe.

In breaking up camp, the duty of a surgeon, if they have sick there, is to care for them, but he was not in authority to provide for them. The brigade surgeons had to care for them; and all this had to be done, sometimes hurriedly, but I found no great difficulty myself in having all attended to when the camp was broken up, and for transportation we had a few wagons to take the sick into Washington and leave them there. There was not much of interest in our camp life at Brightwood. We moved then on down the river to Fortress Monroe and got on the Peninsula.

We had volunteer surgeons and regimental surgeons, but the regimental surgeons

did not find much friendship, I might say, from those who had been in the regular army. And yet a man in the regular army could not be at all as competent as many men who went in from civil life. They had not the experience of hospitals, they had not much practice, but still they felt supercilious, and though I never had any unpleasant dealings with them, yet I saw that we had much to bear from them. But this gradually changed. Surgeons in the army had the works of the English surgeons in their hands, in the terrible scourge of the Crimean War; and from them we learned much how to manage soldiers' quarters.

When we got to the peninsula we had no medical organization worth speaking of.

During that time we had much sickness, and we had no means of providing for the sick. I recollect being ordered to the rear to examine the place where the sick were, and I found them in the most wretched condition. I went into one little shanty and found three men laid on the floor, and they were in typhoid fever. I saw stones under their heads. When I reported this to headquarters, the medical director was astonished. We had no tents, we had no conveniences, we had nothing except what we would get from the quartermaster.

We had no medical purveyor to keep up supplies at that time. One evening while in camp an adjutant general rode up to me. I had my sick and wounded in a house in the distance at the rear. He told me that General Casey required me to move my sick out of the house, that he wanted it for his headquarters.

I said, "Give Gen. Casey my compliments. He can move them out, but I shall report." He went back and Gen. Casey did not remove them. One night Gen. Couch and myself lay down at night and when we awoke we found our boots splashing in a puddle of water. It rained during the night; we got up and were ordered to move at eight o'clock. Gen. Casey's division was to move ahead. The battle of Williamsburg occurred at that time.

The roads were blocked up and we could not move. The fight was going on and there we were delayed by Gen. Casey. He had been ordered to move early. We moved on after a time and came late in the forenoon in time to do some work.

It rained the whole day. We had many wounded and had no place for them except in barns, and the barns were very poor, just cow sheds. Gen. Couch was all day in the field and I was with him, but left before eight o'clock. He sent for me to come to the headquarters to get some supper. I did not go. The regimental surgeons were attending to their duties.

[TO BE CONTINUED.]

INCONTINENCE OF URINE.

℞ Liq. strychninæ, B. P . . . . . m. x;
Tr. belladonnæ . . . . . gtt. xx;
Inf. cascarillæ . . . . . ad. ℥ ij.—M.

Sig.—Teaspoonful three times a day to a child three years old.—*Dr. Ellis.*

For incontinence of urine in children.—(Char. Hospital—*Times and Register*):

℞ Sodii benzoatis . . . . . ℥ i;
Sodii salicylatis . . . . . ℥ i;
Ext. belladonnæ fl. . . . . m. ij;
Aquæ cinnamomi . . . . . ℥ iv.—M.

Sig.—A teaspoonful four or five times a day.

Good tan-makers for the complexion meet with a ready sale as substitutes for a trip to the seashore, just now, among the fair sex.

DENTISTRY.

In Charge of S. W. CLARKE, M. D., D. D. S.

COMBINATION FILLINGS.

READ BEFORE THE R. I. DENTAL SOCIETY BY DR. DWIGHT M. CLAPP, OF BOSTON, MASS.

SOME six or seven years ago I began filling with amalgam and gold, uniting the gold to the fresh amalgam and finishing the filling at one sitting, thereby utilizing the good qualities of each of these materials and making a filling, as it seemed to me, theoretically and practically destined to be of great value.

Five years ago this summer, I read a paper on the subject before the New York Odontological Society which was published in the *Cosmos*. So far as I know, that paper was the first published giving a method whereby gold could be united to amalgam so as to make a strong union. Since that time much has been written on the subject, and now hardly a dental journal can be read without finding some kind of a combination filling mentioned.

I have recently re-read the article above referred to, and find that I could not improve what was then written, were I to re-write it. I might, indeed, add much to it, but could take nothing away, and, to-day, after all these years of trial and experience, I believe that the filling then described, stands unrivalled as a tooth-saver in those cases where it is indicated.

Any one with a fair amount of skill and proper instruction can put a good filling into a cavity that has only favorable conditions. To save frail, far-gone teeth and make them do more years of service is what makes us of value to our fellow men, and it is this that is to endear us to our patients and make our services absolutely indispensable.

Do not think that I flatter myself that I shall give you anything new to-day—I come rather to learn from your collective experience; what I say will be said with the hope that it will unloose your tongues, thereby turning into the hopper of discussion your united wisdom and experience, which when finely ground and carefully bolted, will furnish us with a sack of knowledge for home consumption.

I suppose that to-day nearly half of my fillings are a combination of materials, and I believe I am doing better work than ever before. Now, why is a combination filling better than one made of a single material?

Because it enables us to use each kind of material in that portion of the cavity to which it is best adapted. Few probably will deny that amalgam will preserve a tooth better at the cervical portion of an approximal cavity in a molar, or that gold, with its greater edge strength, is better for the masticating surface.

Again, it enables us to make tooth and filling of one mass, or nearly so, so to speak; the filling thus helping to support the tooth, instead of being supported almost entirely by it. For instance, if a cement filling is placed in a cavity the cement adheres to the tooth and if the walls are frail, helps to strengthen them. Now, if, when we have put some sticky cement into a cavity, while it is yet soft we press some amalgam or gold into this sticky cement, we have an adhesion between tooth, cement and amalgam or gold, and the whole makes a solid mass much stronger than if the cavity were filled with a material held in only by pressure and the shape of the cavity.

It may be illustrated in this manner, suppose we are to build a pier for a bridge out of granite blocks, will it be stronger if the blocks are simply piled one on top of the other, or if each block is united to its neighbor by a layer of the best Portland cement? Therefore, I say, that by combining two, three, and sometimes four different materials in one filling, more satisfactory results may often be obtained than by the use of a single material.

You will readily understand that I am not advocating this as an easy way of filling teeth, although often much time and strength are saved—I present it as a good method of saving teeth, not for saving time or skill.

Of all the filling materials we have, probably cement has the most good qualities; it is of good color, it is adhesive, and is a good preserver of teeth, but it lacks the one most essential quality, durability.

Now if you can fill a considerable portion of large cavities with a material which is capable of taking the place analagous to that of Portland cement in the bridge pier, and protect it with some other material or materials that have the quality or durability, we are, at least, doing much towards arriving at the ideal filling.

R. I. DENTAL SOCIETY.

THE sixteeenth annual meeting of the R. I. Dental Society, was held at the residence of the secretary, Dr. Henry W. Gillett of Newport, Thursday, July 11, 1893. A goodly number of the members from Providence and vicinity enjoyed the delightful sail to Newport and back. After the regular business meeting had been disposed of,

the election of officers for the ensuing year was held and resulted in the unanimous election of the following:

President—Dr. F. A. Arnold of Newport.

Vice-President—Dr. C. M. Noble of Providence.

Secretary—Dr. W. H. Gillett of Newport.

Treasurer—Dr. W. L. Church of Providence.

Librarian—Dr. C. D. Winsor of Providence.

Executive Committee—Dr. Frederick Bradley, Newport; Dr. William H. Carpenter, Providence; Dr. P. J. Heffernan, Pawtucket.

President-elect Arnold being absent, Vice-president Noble took the chair and after thanking the society in a few well chosen words, he introduced Dr. Dwight M. Clapp, of Boston, who read a paper upon combination fillings, which was listened to with a great deal of interest by the members of the society. He had several models showing the various cases in which combination fillings could be used to advantage. At the close of his paper a general discussion followed. Dr. Brackett at this time showed to the members a case of regulating what Dr. Farrar, of New York, was performing, and Dr. Gillett showed a case of re-planting of three front teeth which had been knocked out and which had become, under his treatment, as firmly fixed as before the accident. After the society had examined these cases Dr. Eugene H. Smith of Boston gave a very interesting as well as instructive talk upon orthodontia, illustrating his remarks by charts and many beautiful appliances many of which were new to most of the members of the society.

At 3 o'clock a dinner was prepared for the society at the Aquidneck. At 4.30 the members from out of town took the boat for Providence, all declaring that they had spent a delightful day.

Medical editors are being treated better and better every year, and the average physician is really waking up to the fact that they are pretty useful to have, and most physicians, except perhaps a few musty back numbers and drones here and there, are beginning to say to us: "We welcome the Monthly as our most useful visitor and we don't see how we really got along all these years without it;" and then they plank down *a dollar and a half* and we smile very modestly and say, "Thank you." It is getting to be a very common thing to be stopped here and there in our daily missionary trips to the sick, to receive and receipt subscriptions for the Monthly and a great many send it by mail. Keep right on gentlemen. The Industrial Trust Company's building on Westminster and Exchange streets will soon be ready, and the surplus money which is not consumed by compositors, printers, paper-manufacturers and the P. O. department, to say nothing of those who write and read proofs (but we assure you these latter won't get a smell of the cash for two years at least), can perhaps be stored in some of their prospective roomy vaults, so, gentlemen, keep right on and don't be afraid to send in your subscription, and if you are too busy to send it, just give us a hint and we will be glad to call for it.

SOCIETY REPORTS.

SEMI-ANNUAL MEETING OF THE RHODE ISLAND PHARMACEUTICAL ASSOCIATION.

HELD JULY 12, 1893, at PROVIDENCE, R. I.

THE President, **Mr. E. W. Vars**, called the meeting to order at 2:45 o'clock.

The records of the preceding meeting were read by the Secretary, **Mr. W. E. Cates**, and accepted.

The following persons were duly elected members of the Association: **Frank Watson**, Peacedale; **Chas. M. Barbour**, Westerly; **Wm. R. Potter**, Providence, and **Arthur A. Page**, Providence.

The Mortar and Pestle Club were holding a meeting in the building, and upon motion of **Mr. O'Hare**, an invitation was extended to them to take seats with the Association, which they accepted.

Committee on Legislation: Owing to the absence of the chairman no report was made.

Special Committee on Legislation: **Mr. James O'Hare** verbally reported as follows: "In the absence of a report by the committee on legislation, I would say that I am not chairman, but simply a member of this special committee, and in this capacity have endeavored to do my share of the work.

The special committee of ten, appointed one year since, realized that they had a considerable amount of labor to perform, and to facilitate matters, the work was laid out and divided among the members of the committee. To one member was assigned the preparation of a history of legislation similar to that which we desired, to another the wording of the amendments, its proper legal phraseology, and to another the presentation of our case to the senate committee. The committee worked together harmoniously and considered that everything was going along very smoothly indeed until the day the bill was brought up for a hearing. The only notification received by the committee that a hearing was to be held that day was from a member of the Mortar and Pestle Club, who is also a member of our Association. Our Committee of Ten were scattered throughout the state, and it was impossible, at so short a notice, to get it together and appear before the legislative committee to present the amendments and urge their adoption. Therefore, this gentleman from the Mortar and Pestle Club and myself were your only representatives present at the hearing. We endeavored to

convince the chairman of the senate committee that it was not fair to our Association, or to us as individuals, to have this hearing at this time, as we had been informed that we should receive proper notification, and we hardly considered an hour's notice sufficient time to notify the members of our committee, residing in different parts of the state, to be present. The chairman, however, stated that this matter had been before them for some little time now, and he desired to dispose of it, and was going to have a hearing that day. We presented our views of the matter as to why we desired this legislation, apparently with some prospects of success. The committee, as far as we could judge from the interest they took, inclined us to believe that they favored the proposed changes. Whatever other influences were at work later I do not know. It is only necessary to say that we failed to secure what we were after.

I had hoped that we might ask for a discharge of this committee, which, as at present constituted, can do very little. I do not, however, feel that we should lose heart, that we should be discouraged because we have been temporarily defeated. It should only make us more determined to succeed next time."

Upon motion of **Mr. Cates**, the very full verbal report was received, made note of and placed on the minutes.

Dr. E. P. Sumner, pharmacist, having retired from active business, tendered his resignation to the Association, which was accepted, and his name was transferred to the honorary list.

Owing to the unavoidable absence of the author, **Mr. Cates** was requested to read the paper on "Manufacture and Testing of Pepsin" by **C. H. Daggett, Ph. G.**, which was followed by a paper by **Dr. J. Frederick Haller, A. B., M. D.**, on "Our Friend The Pharmaceutical Chemist." A paper on "Examination of Market Samples of Powd. Ext. Belladonna, Stramonium and Hyosciamus" was presented by **Chas. E. Greene, Ph. G.**, and a paper on "The Manufacture of Hypophosphates" by **Mr. James O'Hare, Ph. G.**, was then read.

Upon the conclusion of the reading of the papers, **Mr. James O'Hare** remarked, "I regret the absence of the author of the first paper, also that the members of the Association were not notified of the subject matter of the papers to be read, and the general outlines of the same beforehand, as unless a man is very well acquainted with the subject he does not like to speak upon it and perhaps render himself liable to criticism." In speaking of **Dr. Haller's** paper, he stated, that the doctor had not only given us some valuable information, but he had also evinced an interest in the Association. He further stated: "The field of investigation to which the Doctor had called our attention is comparatively unworked; yet, however much in-

clined we might be to accept his suggestion and act upon it, the majority of us have not the time or the money to gratify that inclination. There is but one thing in this very excellent paper that we can take exception to. We can unite with the Doctor in everything else he said, and in this one we shall not take issue with him, for he is our honored guest, yet shall simply state our views from the standpoint of the pharmacist. He stated that the pharmacist does wrong when he refills a prescription. It has not yet been finally determined upon on whose authority a prescription can be filled. The pharmacist does not like the idea of having a lawsuit, and possibly this might result from his refusal. For instance, suppose he should refuse to refill a prescription and while the person is going to get an order from a physician, the patient dies. I am pretty well satisfied that the authorities would hold the pharmacist responsible. The custom has been that when a prescription was offered to be refilled, it was compounded, except when it contained any poisonous substance. In my experience, where a prescription contained anything that was harmful, the person presenting it was told that there might be changes in the condition of the patient, and what might be beneficial to-day, might possibly not be to-morrow. The pharmacists discourage the refilling of physicians' prescriptions all they can, but they cannot postively refuse to compound them.

Pharmacists keep open shop for the dispensing of medicines, and until the question of ownership of the prescription has been determined, I do not think that this Association can take action. Perhaps a conference of the two parties, the physician and the apothecary, would be an excellent plan. They could obtain an opinion from some authority who knows whether or not the pharmacist, the physician or the patient is the owner of the prescription. I am sure the pharmacist would welcome any such decision, even if it were against the refilling of prescriptions, because he always feels that he is, in a measure, responsible. Where the pharmacist has received orders from the physician not to refill prescriptions or when the words *non acceptandur** appear on the prescription blank, he does not hesitate to refuse to do so. I am not alone in this matter. Fully two-thirds of the pharmacists do as I have done in my practice regarding the filling of prescriptions. From the knowledge I have of those who constitute it I would be willing to pledge the Rhode Island Pharmaceutical Association to a man, if it was determined that no more prescriptions should be refilled, that every one of them would abide by the decision. But as the law now stands, I do not see how we can refuse to renew prescriptions when they are presented to us. There is now published in this state a monthly journal, devoted to the interests of the medical, pharmaceutical and dental professions. If the pharma-

* Perhaps *non repetatur* would better convey the idea.—Editor.

cists would but take an increased interest in that portion of the Monthly devoted to pharmacy, much good would result.

At the conclusion of **Mr. O'Hare's** remarks it was unanimously voted that the thanks of the Association be extended to **Dr. Haller** and **Messrs. Daggett, Greene**, and **O'Hare** for their very able, instructive and interesting papers read before the Association.

The Chair appointed **Mr. James M. Fenner, Mr. James O'Hare, Mr. Henry J. Alfreds** and **Mr. Wm. E. Cates** as Committee on Refreshments for the annual meeting.

Mr. Wm. E. Cates had prepared a paper which, owing to the lateness of the hour, was deferred until the next meeting. There being no further business, the Association adjourned to the ante-rooms where a bountiful collation was spread. After dinner addresses were made by the President, **Mr. E. W. Vars, Mr. E. K. Gridley** and **Mr. Herbert B. Putnam** of the firm of *Parke, Davis & Co.*, which were replete with witticism. The sociability and fraternity of the members were particular features of this meeting and evinced a closer relationship to one another than has heretofore existed.

The thanks of the Association were voted to *Messrs. H. G. Possner* and *Geo. F. Young & Bro.* for courtesies received.

WASHINGTON COUNTY MEDICAL SOCIETY.

THE semi-annual meeting of the Washington County Medical Society was held at the Larkin House, Watch Hill, Thursday, July 13th, at 11 o'clock A. M., President Dr. E. E. Kenyon in the chair. After the usual amount of routine business, a very able, interesting and instructive paper on "Hypnotism" was read by Dr. Canfield, of Bristol, which was followed by an animated discussion, participated in by Drs. Rogers, Clarke, Smith and others. At 1.30 P. M. an adjournment was made to the elegant dining rooms of the hotel, where one of the incomparable dinners, for which the house is noted, was served. At 3 P. M. the members with invited guests boarded the fine steam yacht "Herald" and enjoyed an ocean sail of some two hours, the boat touched at Stonington, to allow some of the members to take an early train home, after which a run was made through Little Narragansett Bay, up the Pawcatuck, and the party landed at Westerly, at 6 o'clock P. M.

Thus passed one of the most enjoyable mid-summer meetings of the society. It is to be regretted that more of the members were not present to enjoy the occasion.

BROWN UNIVERSITY MEDICAL ASSOCIATION.

THE first annual meeting of the Brown University Medical Association was held in Manning Hall, Tuesday afternoon, June 27, 1893, immediately after the adjournment of the meeting of the Alumni Association. Dr. H. G. Miller, '60, president of the Asscoiation, presided, and Dr. W. L. Munro, '79, the secretary, read the minutes of the two previous meetings, including the reading of the constitution.

Dr. Miller said in calling the meeting to order, that he felt pleasure in presiding at the first annual meeting of the Association, and that he hoped that it would be the means of much benefit to the college and to education in general. The business of the meeting was taken up and prosecuted in a direct and earnest manner. The constitution, with a few amendments, was unanimously adopted. The board of officers, as elected at the first meeting of the Association in May, was re-elected for the ensuing year. The Advisoy Committee was made up of several boards which should serve each a different number of years.

When the important matter of laying out the curriculum came up, Dr. W. W. Keen, '59, of the Jefferson Medical College, Philadelphia, made a very practical speech, stating his belief that the Association should now put itself into communication with the various medical schools of the country, stating that Brown could offer instruction in such and such branches, and asking how it would be preferred that work in the courses for medical students should be done. The matter of presenting the work of the Association to preparatory schools was left to the Executive Committee. On the proposition of the secretary, it was voted that a list be prepared of the members of the Association, giving their various titles and degrees received. The secretary, Dr. Munro, was chosen to speak in behalf of the Association at the Commencement dinner at Sayles Hall on the following day. No. 5 University Hall was placed at the disposal of the Association for headquarters on Commencement Day, and a registration of names of medical alumni was made.

Not only are Brown men in the medical profession in Providenee and vicinity deeply interested in this proposed work, but the letters that have been received from distant alumni all point to the fact that the enthusiasm for the work is widespread.

The business having been transacted, the meeting adjourned.

Good Medicine.—We overheard a very amusing conversation last week in one of our country drug stores. A darkey came into the store, went up to the young clerk (who also prescribes when he gets a chance) and said: "Say, Boss, I'se sick an' needs sumfin'. The clerk looked wise and told the darkey to stick ou this tounge, and began to feel around the "coon's" elbow to find his pulse, and remarked: "Come back to the prescription case and taste this and see if this is not what you want." The darkey tasted as requested, put on a "ten by twelve smile" and said, "I 'specks dat's it, Boss." "Well," said the clerk, "take this bottle home with you, drink all of it in an hour, and if you don't feel better come back and get another bottle; it won't hurt you."

That night every "coon" in town was as drunk as a "biled owl," from the results of the same "medicine."—*Medical Review.*

The R. I. Medical Science Monthly.

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We have a number of Associate Editors in America and Europe whose names will be inserted in future issues.

All communications to this Journal of any nature whatsoever, whether Letters, Exchanges, Books or Pamphlets for Review, or anything intended for the Editorial or Business Department, **should be addressed exclusively to**

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Books and monographs, native and foreign, on any of the Medical Sciences, will be reviewed without fail, according to their merits and the space at disposal.

Alterations in the proof involving an excessive amount of work, will be charged to authors at the rate of 60 cents an hour.

Contributors desiring Reprints or Extra Copies of the Journal can obtain them at reasonable rates by application to the Business Department immediately upon the acceptance of the article.

EDITORIAL.

DR. Wm. A. Hammond has, in the *N. Y. Medical Journal* for January 28, 1893, published an article relating to "Certain Organic Extracts." On the strength of this article Messrs. Parke, Davis & Co., of Detroit, Mich., have placed on the market certain products, which they call "Cerebrin," etc., prepared after the formula of Dr. Wm. A. Hammond.

According to their statements, they succeeded in producing "Cerebrin" so called, and which they believed to be a representation of Dr. Ham-

mond's process, within a few days, instead of six months, the time required by Dr. Hammond. Believing that they had accomplished a result as gratifying to the author of the above named paper as to themselves, they announced the fact in their advertisements. There are several fundamental scientific and ethical principles involved in this question, of which we have something to say. When anyone publishes his observations on a certain subject in a scientific journal it is clear and well understood by everybody, that he desires to bring such observations before the scientific public. He must not then be surprised if such observations are criticized, and even investigated by other scientists, particularly if he, as Dr. Hammond has done, literally invites scientists to do so in the following words in the above mentioned article:

. . . "but which, through the accumulation of material by other observers, will eventuate in the creation of a permanent and worthy therapeutical structure."

If we view the relation between the two parties from strictly ethical and scientific standpoints, no criticism can be made about the action of Parke, Davis & Co., in doing precisely what is customary in our profession and among scientific people in general. Messrs. Parke, Davis & Co. have indicated plainly on the bottles, that their "Cerebrin" was prepared after the formula of Dr. Wm. A. Hammond. They have, consequently, in no way detracted from whatever honor is due to Dr. Hammond's investigations or claims of discovery, and they are entitled to a great deal of credit for having improved upon Dr. Hammond's methods in such a manner, that the extracts in question can be made in six days instead of six months or a year, without claiming therefore any special protection or honor.

On the other hand, it is culpably wrong and exceedingly unbecoming for a gentleman, claiming to be a scientist, to prohibit Messrs. Parke, Davis & Co., or anybody else, to investigate the matter and improve upon the method of manufacture, especially as Messrs. Parke, Davis & Co. have done so openly, and in strict accordance with professional and ethical usages.

If every one who discovers anything, or improves upon the discoveries of others in physiology, chemistry, therapeutics, or any other branch of science should do the same, investigations would then come to a standstill and further progress would be impossible. If we should act, dictated by that narrow selfish principle, we would not even dare to experiment in laboratories with any substances, which have been known and used for hundreds of years. If we analyze the motives which dictated Dr. Hammond to prohibit Messrs. Parke, Davis & Co. to experiment with the substances in question we find, that they were not in the least scientific, but quite selfish and mercenary, namely: to enrich the chemical company of which Dr. Hammond is alleged to be President and a heavy stockholder.

In giving the results of his investigations to the scientific public, Dr. Hammond did not mention a word about the fact that he wanted these "Extracts" manufactured exclusively by the company of which he is alleged to be President. Had he done this, no respectable medical journal would have opened its columns to the article in question, except its advertising columns, where it properly belonged. But the most remarkable part of the whole matter is, that neither the name "Cerebrin" or the whole discovery is new, as can be proven by Dr. Hammond's own article in the N.Y.Medical Journal, Jan. 28, 1893, wherein he says:

. . . "Observers in various parts of the world have been engaged in similar investigations,"

and again he says:

. . . "the germ of the idea, however, is the same, (between his and his prediscoverers) and I cheerfully yield to my unknown proto-observer whatever distinction may be claimed on the score of priority . . .

"Besides, there have been isolated observations made within the last two or three years by German and French physicians which are to some extent in accordance with those which I have been conducting."

When Dr. Hammond says that he has selected the name "Cerebrin" to denote the animal extract produced by him, he does not seem to know that the same name, for the same product, had formerly been used by others. By looking into *Watt's Dictionary of Chemistry*, vol. 1, article on Cerebrin, we find the following:

"The name was used first by *Kühn*, 1828. It was used by *Lassaigne*, 1830, to denote the entire substance that can be extracted from brain. It was employed by *Gobley* 1850 and by *Müller*. References:

Fourcroy, "Annales de Chimie et de Physique 16,282. *Fremy*, Journal de Pharmacie et de Chimie 27,453. *W. Müller*, Liebig's Annalen 103,131 and 105,361. *Gobley*, Journal de Pharmacie et de Chimie 19,346. *Liebreich*, Liebig's Annalen 134,29."

Besides this, we find the same name, applied in the same manner in most text-books on organic chemistry. Others who have made great discoveries which have proved to be of everlasting blessing and countless benefit to humanity, (and whether these substances in question are to be of any decided benefit or not, remains yet to be demonstrated), have never, as far as we can now recollect, contracted for any exclusive patented manufacture of their products by certain chemical companies, and particularly never with a concern said to be in part their own.

Notable examples are the discoveries of vaccination for small pox, antiseptic remedies, chloroform, ether, etc. All discoveries of any far-reaching and real value to humanity in the medical sciences have always been cheerfully given to the profession, and we are surprised, that a man of Dr. Hammond's supposed high standing in the profession should stoop to such mercenary, unprofessional, and, for a true scientist, disgraceful methods, in bringing before the profession some experiments made

with substances, which have been known, used, and investigated, by a number of scientists, in various parts of the world, for almost a century and prohibit a reliable house, of established good name and well earned reputation, to carry on experiments in the same direction.

What conclusions can we form with such proofs before us?

Simply, that this may be a clever way to do business and make money, but it is not a scientific, professional, or ethical way of doing things.

LITERARY REVIEW—BOOKS RECENTLY PUBLISHED.

A Practical Treatise on Materia Medica and Therapeutics, with Especial Reference to the Clinical Application of Drugs. By John V. Shoemaker, A. M., M. D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Medicine, and Clinical Professor of Diseases of the Skin in the Medico-Chirurgical College of Philadelphia; Physician to the Medico-Chirurgical Hospital; Member of the American Medical Association, of the Pennsylvania and Minnesota State Medical Societies, the American Academy of Medicine, the British Medical Association; Fellow of the Medical Society of London, etc., etc. Second Edition. Revised. In two royal octavo volumes. Volume 1, 353 pages: Devoted to Pharmacy, General Pharmacology, and Therapeutics and Remedial Agents not properly classed with drugs. Volume 2, 680 pages: An Independent Volume upon Drugs. Volume 1, in cloth, $2.50 net; Sheep, $3.25 net. Volume 2, in cloth, $3.50 net; Sheep, $4.50 net. Philadelphia, The F. A. Davis Company, Publishers, 1914 and 1916 Cherry street.

To the members of the profession that are familiar with the first edition of these two valuable volumes on Materia Medica and Therapeutics, few remarks are needed. The first volume has been carefully and thoroughly re-written and remodeled, the author strongly emphasizing the value of the natural forces and of mechanical and physiological agencies in the treatment of disease.

The first chapters of the book are devoted to pharmacology and general therapeutics, the chapter on electricity in medicine is very exhaustive and lucid, and is as brief as is consistent with utility. The succeeding sections on massage and rest cure enters very fully into their physiological effects and therapeutic application. The chapters on hydrotherapy, climate, diet, heat and cold, have all been rewritten.

The volume shows much care and labor, and demonstrates very fully how much can be accomplished in the practice of medicine without the use of drugs, and by the judicious combination of drugs with physiological remedies.

Volume 2 takes up the various drugs in alphabetical order, each drug being treated under the following order: 1st, pharmacology; 2d, physiological action; 3d, therapy. The author has introduced into this volume a brief consideration of many substances not in general use by the profession; many are new, and a few are old remedies which have fallen into undeserved neglect. In the back part of the volume will be found a table of doses, an index of drugs and preparations, and a clinical index, which add greatly to its value, making the contents accessible in the hour of need. The typography and general arrangement of both volumes is good. The publishers have done their work well.

A. B. B.

OBITUARY.

DR. JOHN H. MERRILL.

DR. JOHN H. MERRILL was born in Norway, Me., January 9, 1834, and died at Potter Hill, R. I., Tuesday morning, July 4th, aged 59 years, 5 months, and 25 days. Dr. Merrill was the son of Henry Ambrose and Abigail Russell Hill Merrill. He studied medicine at Harvard University and Albany Medical College, from which he was graduated in 1858. Then he came to Westerly, R. I. and began the practice of medicine under Dr. Wm. Wilbur.

On May 6, 1860, Dr. Merrill was married to Mary Anna Babcock, and about the first of June of that year he began the practice of medicine and surgery at Potter Hill. In the spring of 1862, he enlisted as a private in the 1st R. I. Light Artillery, and was promoted to assistant surgeon on August 25, 1862, again being promoted to surgeon with the rank of Major on April 6, 1863. At the time of his discharge, March 16, 1864, he held the position of Surgeon-in-chief, Artillery Brigade, 2d Army Corps.

Dr. Merrill was a successful physician and was ranked among the first in skill and understanding. He leaves a widow, one son, two brothers, and one sister to mourn his loss. The funeral was held on Thursday, July 6th, which was attended by a delegation from Hancock Post, of which organization he was a member. The services were conducted by the Rev. Geo. J. Crandall, of the first Hopkinton Church.

FUN, FORTUNE AND FORMULÆ.

Doctor, if you enjoy a good toilet powder, and no household should be without it, we know of none better than the Compound Talcum Powder of Julius Fehr.

At this season of the year, it often becomes necessary for the physician to prescribe ice, and it is needless to say that it is of paramount importance that it be pure. Of the ten or twelve samples collected and examined by the State Board of Health last season the Artifical Ice made by the Narragansett Brewing Co., Mr. Herman G. Possner, Manager, gave the best results. A word to the wise, etc.

Hair-Lotion for promoting the capillary growth:

℞ Tinct. capsici . . . . . ℥ ss;
Tinct. saponariæ quil. . . . . ℥ j;
Glycerini . . . . . ℥ ij;
Tinct. cantharidis . . . . . ℥ iij;
Spiritus rosmarini . . . . . ℥ iss;
Aquæ rosæ . . . . . ad. ℥ viij.—M.

Sig.—Drop on the hair night and morning and brush the scalp well.

Lost Ten and One-Half Pounds.—I have been prescribing Phytoline in obesity, and it has had good effects upon my patient—a reduction of ten and one-half pounds in less than a month. R. Inge, M. D., Greensboro, Ala.

If you send your prescriptions for Optical goods to Blake Bros. you may rest assured they will receive prompt and careful attention.

If you are thinking about heating your residence this fall, call upon or write A. J. Magoon & Son, and let them tell you about The Home, the lowest priced satisfactory Furnace on the market.

CALENDAR OF MEDICAL SOCIETIES.

National Am. Academy, J. E. Emerson, Detroit, President; C. McIntyre, Easton, Pa., Secretary.

National Am. Andrological, E. R. Palmer, Louisville, President; J. A. Fordyce, New York, Secretary.

National Am. Climatological, G. T. Jackson, New York, President; G. H. Fox, New York, Secretary; Milwaukee, Sept. 5, 1893.

National Am. Gynecological, T. Parvin, Philadelphia, President; H. C. Coe, Secretary.

National Am. Laryngological, C. H. Knight, New York, President; M. J. Asch, New York, Secretary.

National Am. Medical, Hunter Maguire, Richmond, President; W. B. Atkinson, Philadelphia, Secretary,

National Am. Medico-Psychological, J. Curwin, Warren, Pa., President; H. M. Hurd, Baltimore, Secretary; Chicago.

National Am Obstetricians, L. S. McMurtry, Louisville, President; W. W. Potter, Buffalo, Secretary.

National Am. Ophthalmological, S. B. St. John, Hartford, President; H. Derby, Boston, Secretary.

National Am. Orthopedic, J. J. Steele, Louisville, President; J. Ridlon, Chicago, Secretary; St. Louis, Sept. 19.

National Am. Physicians, A. L. Loomis, New York, President; H. Hun, Albany, Secretary,

National Am. Railway Surgeons, C. W. P. Brock, Richmond, President; E. R. Lewis, Kansas City, Secretary.

National Am. Rhinological, E. K. Lewis, Indianapolis, President; R. S. Knode, Omaha, Secretary; Indianapolis, October, 1893.

National Mississippi Valley, R. S. Sutton, Pittsburg, President; C. A. L. Fitzpatrick, Secretary; Indianapolis, Oct. 12, 1893.

National Pan-Am. Congress, W. Pepper, Philadelphia, President; C. A. L. Reed, Cincinnati, Secretary; Washington, Sept. 5, 1893.

State, Alabama, J. T. Searcy, Tuscaloosa, President; T. A. Means, Huntsville, Secretary; Tuscaloosa.

State, Arizona, J. Miller, Phoenix, President; J. T. Green, Tucson, Secretary.

State, Arkansas, J. T. Jelks, Hot Springs, President; L. P. Gibson, Little Rock, Secretary.

State, California, W. E. Taylor, San Francisco, President; W. W. Kerr, San Francisco, Secretary.

State, Colorado, W. E. Wilson, Denver, President; H. S. Lobinger, Denver, Secretary.

State, Connecticut, C. B. Newton, Stafford Springs, President; N. E. Worden, Bridgeport, Secretary.

State, Dakota, North, A. P. Rouncseveille, Larimie, President; D. S. Moore, Jamestown, Secretary.

State, Dakota, South, A. L. Peterman, Parker, President; R. C. Warne, Mitchell, Secretary.

State, Delaware, E. W. Cooper, Camden, President; W. C. Pierce, Wilmington, Secretary.

State, Florida, S. Stringer, Brookville, President; J. H. Douglass, Jacksonville, Secretary.

State, Georgia, A. H. Smith, Hawkinsville, President; D. H. Howell, Atlanta, Secretary.

State, Illinois, E. F. Ingals, Chicago, President; D. W. Graham, Chicago, Secretary.

State, Indiana, G. F. Beasley, Lafayette, President; E. S. Elder, Indianapolis, Secretary.

State, Indian Territory, D. Bagley, Vinita, President; H. B. Smith, McAlester, Secretary.

State, Iowa, C. M. Hobby, Iowa City, President; C. S. Chase, Waterloo, Secretary.

State, Kansas, F. F. Dickman, Fort Scott, President; G. C. Purdue, Wichita, Secretary.

State, Kentucky, A. Dixon, Henderson, President; Steele Bailey, Stanford, Secretary.

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ENGLISH IMPRESSIONS OF THE MEDICAL PROFESSION IN AMERICA.

THE AMERICAN MEDICAL ASSOCIATION: ITS ANNUAL MEETINGS; REMEDIAL DEFECTS AND STERLING MERITS OF ITS CONSTITUTION.—SECTIONAL CONGRESSES—ELEMENTS OF SCIENTIFIC DEVELOPMENT IN THE UNITED STATES—THE CHICAGO EXHIBITION, THE GREATEST AND BEST WORTH SEEING, AND THE ONLY REASONABLE AUTUMN HOLIDAY RESORT FOR THE PRESENT.

MR. ERNEST HART writes from the ss. *Campania:*

I am returning from my short visit to the United States as the guest of the American Medical Association, with a mind richly stored with pleasant memories and new impressions. The frank and cordial greetings of such large bodies of representative members of the profession from all parts of this vast continent, their self-respecting originality, their marked regional individuality, the friendly but distinctive competition for progress and leadership of north, south, east and west leave upon the mind a succession of vivid pictures which no words or anything short of observation can convey and impress.

New York, with its wealth of clinical material, its largely developed hospitals and schools, and its prosperous practitioners and consultants, has a certain leadership which some think too self-confident, with its roots not yet deeply set. Boston cultivates with proud reserve and academic polish traditional thoroughness and a high university culture. But neither Boston nor New York were well represented at the Milwaukee Congress; from causes which have some interest beyond the American continent, and of which I propose to make a further study before undertaking to discuss them in detail. Before they can be removed—and all agree that in the interest of professional union they ought to be removed—some constitutional changes will be obviously needed. The present is rather a critical period in the development of professional life in America; there is a tendency to sectional caucussing and special "congresses," which is threatening to limit the usefulness of much scientific activity, it deprives the "physicians," the "surgeons," the "laryngologists," and so forth, of the power for good which comes

from mutual and common intercourse, and the cultivation of a sense of unity and affection, amiable criticism and common effort at the united congress, in which work is carried on in sections, but on one foundation. So much sectional difference has been aroused, and the organization of the annual sectional congresses all over the states has been so assiduously developed, that some difficulty may be found in restoring unity of sentiment and action. Nowhere, however, could the results be more valuable than in America of a common understanding on the relations of the profession to the public, and of their duties to each other. Nowhere does there exist a stronger need or a more useful sphere for medical thought and knowledge in guiding municipalities and executive officers in questions of public health and the government of public institutions, the endowment of science and the maintenance of adequate standards of education and examination. The future of the higher life in America and the development of culture and mental progress, the struggle against commercialism, and the blinding and corrupting worship of the dollar, lies largely with the professional classes. The medical tradition is essentially a protest and an antidote against this curse of new communities. The most superficial observer from without must see that this great attribute of medicine and this high duty and privilege are recognized and brought into play in very different degrees in the various centres of the United States. The newest settlements and states are far from being the least developed in this respect. Chicago is laying wide and deep the foundations of its literary and scientific education. Two great and richly endowed public libraries—one with a limitless supply of medical literature—are already endowed with munificent incomes. The Rush College is of ancient fame, but is being largely extended; the Armour Institute and the Chicago University are springing into great efficiency and importance. Chicago has one of the best, if not the best, schools of pharmacy in America. Three thousand college students already throng her gates, and the munificence of her citizens is fast supplying them with solid and complete means of study and incitement to research.

In the South, Baltimore has model institutes and typical hospitals to boast; Philadelphia, which aims at rivalling New York on a quiet separate eminence, is not likely to be left behind. The Californian is the "man of the future," and is coming every year more to the front.

From the federation of these great forces, from their mutual and generous intercommunication, and their variety in unity, may be expected a hitherto unexampled development of professional usefulness and vigor in inspiring social action, in modifying further administration of health matters, in raising and purifying the standards of life, as well as in the advance of the art of healing. There have been of late

years some distracting influences which have marred the expected progress. It would be presumptuous in an individual to hope to do anything important towards amending this. But sometimes an experienced outside observer may give a useful hint, and when I return, as I hope to do, for an autumnal vacation visit to the States, it will be with a desire to find a way of being probably useful in this direction, as well as to renew the profoundly pleasurable experiences of my mission of the last few weeks.

The evidence that the words of an outside visitor have sometimes an incidentally vivid effect—due to a variety of more or less obvious accessory reasons—has been afforded by the happy results of my last act in Chicago—in an address on the Health of Chicago and its Relation to the Water Supply. I was able to demonstrate an undeniable relationship betweeen the preventable diseases of the city and its pollution of the lake, and to demonstrate some incredible shortcomings in this matter which have greatly moved public opinion. A Municipal Committee has been appointed to carry out remedies, and so far Chicago and its visitors will, I hope, benefit by my short but most interesting sojourn in the great capital of the West. No one could spend a more instructive and pleasurable holiday than at the World's Fair during the autumn. It is a great misfortune that the International Medical Congress at Rome will divert many from the never-to-be-renewed and great lessons of this vast display of the energies, capabilities, resources, and developments of a congress of nations or of United States, an English-speaking, English-loving people, and having on all hands that to show us which must make all Englishmen proud and happy to see; unexampled vigor, unlimited resource, matchless natural marvels, a race of lovely girls, rapidly developing scientific institutions, and a growing passion for research, a continent in which lies the future of the world peopled by an Anglo-Saxon race. The Englishman abroad feels at home in the United States, and everywhere friendly voices and hearty grasps of the hand give him the assurance that he may feel so. It is idle and foolish for any British doctor who has the leisure and the moderate means at command to think of spending his autumn elsewhere than in America.

As to the means of transit they are of marvellous facility, ease, and comfort, and comparatively inexpensive. A steamship, for example, such as the *Campania* is a marvel of modern maritime achievement, but as a floating hotel, it is hardly to be distinguished in comfort or stability from the finest hotels of the metropolis. It "takes little or no notice" of even a heavy sea. During my journey out and home I saw hardly an empty chair even in a tolerably heavy sea. I was "delivered" at Chicago within eight days of leaving London, without

any sense of having moved out of a first-class hotel from door to door, for the New York Central "flyer," which bridges the distance between New York and Chicago in nineteen hours, is a drawing-room train, with a first rate restaurant, smoking cars, writing room, sleeping parlors—in fact, one's own house on wheels. The difficulities and costs of travel to and in America are purely fictitious bugbears. Travel is cheaper in America than in England, if reasonable good sense be used in arranging it. Between London and Chicago it goes by clockwork.—*British Medical Journal, 1698.*

OBSTETRICS.

THE MANAGEMENT OF ABORTION.

READ AT THE MEETING OF THE ONTARIO MEDICAL ASSOCIATION, BY DR. R. W. POWELL, OTTAWA.

IT is not my intention to launch out into some startling developments as to the management of abortion on such an occasion as this. Indeed, I would not deem it consistent with my present object in introducing this subject for your consideration in this discussion to deal with it in any other manner than the purely orthodox.

To such an audience as this, I am quite aware that I need not attempt any flights of fancy, nor do I flatter myself that I can advance any ideas as to how abortion should be managed that are not perfectly familiar to you all. All I hope for and all I ask is to have the privilege accorded me by your committee to introduce the subject to your favorable notice, knowing its great importance to us all as every-day general practitioners. I feel persuaded that those gentlemen who are to follow me will give me due credit for dealing with the subject in a general way, so that they will in no wise be hampered in dealing with any branch of it from their own point of view.

First, in what way shall we deal with a woman who has shown a marked tendency to abort, or who, let us say, has not yet succeeded in bringing her offspring to maturity? This is a wide field, and affords ample scope for any man's pen; but I must ask you to be content with a brief survey of this branch of the subject.

It is admitted that, among general causes, syphilis stands out prominently as a cause of abortion, and it would appear that in such cases, so long as the poison is active, just so long will the uterus show a disposition to get rid of its contents. I am of opinion that an ovum diseased in this manner is the irritant which brings on the uterine con-

tractions, due, no doubt, in some cases, to its premature death, and in others to the diseased blood circulating in the vessels of the uterine wall rendering the muscle unhealthy, and thus unfit to retain the strain put upon it by the development of its contents.

This, to my mind, is a fortunate provision of nature against the maturing of unhealthy offspring. It is in such cases as these that mercury has shown some of its greatest triumphs. I need not dwell on the course that ought to be pursued, excepting to guard you against always directing treatment to the mother, because it is undeniable that the male parent being a syphilitic may deposit the poison in a healthy woman, or perhaps I should say impregnate her with deteriorated semen, and so bring about the disaster above referred to.

Diseases and unhealthy conditions of the uterus itself are common causes of abortion, but fortunately we find in actual practice that they are equally likely to prevent impregnation occuring. Causes are endometritis, parametritis, endocervicitis, with its attendant albuminous-looking plug of tenacious mucus blocking the canal and affording an effectual bar against pregnancy, fibroid disease, malignant disease, and that well-known condition of everted and patulous os, owing to a split cervix from former pregnancy, with perhaps an instrumental delivery. Malpositions come in for their share of blame, and in some cases rightly so. I need, however, only dwell for a moment on the retroversion and severe retroflection which for mechanical reasons, manifestly interfere with the progress of gestation. It is here that we can the most readily succeed by placing the woman in the knee-elbow position and replacing the uterus, retain it there by a well-fittnig pessary till the third month is completed; then, in most instances, it ought to be removed, as it often irritates the vagina if left too long, and besides, by the time mentioned, the fundus has risen out of the pelvis and no longer needs the support given by the pessary.

In the conditions above mentioned as causes, appropriate treatment will have to be rendered. Repeated abortions will sometimes occur in young married women, or, as I have known it, begin to occur after a woman has borne one or more children at full term. This is known as a "habit of aborting," and is often most rebellious, even to well-directed treatment.

Whatever may have been the cause of the first case, we can only conclude that the endometrium has not regained its pristine condition, and is not capable of nourishing the ovum, or perhaps of retaining it. In a large number of instances, I am satisfied that this is due to that notorious pathological condition known as subinvolution.

While it is true that pregnancy offers the only hope of cure for this condition in a vast majority of cases, yet in the case we are now consider-

ing of repeated abortion, it is this very thing, oft-repeated pregnancy, which is so much to be deplored, because sufficient time is not given for the uterus to regain its normal nulliparous state, and the waning strength of the patient from possibly repeated hœmorrhages and constant illnesses is a prime factor in preventing proper and normal involution. Attacking this unhealthy endometrium by swabbing the uterus out with some moderate escharotic is followed by the best results in some cases; accompanied by change of air and scene, seaside resorts, an ocean voyage, moderate exercise and plenty of fresh air and good stimulating food, and, above all, a complete daily evacuation of the bowels in order to prevent vascular stasis in the pelvic organs, and to promote in them a healthy nutrition. All these must be tried and persevered in. With all this, if the patient remain at her home, absence of sexual intercourse must be insisted on for six or eight weeks.

In that other class of cases where no good cause can be assigned, but still the fact remains, we must be guided solely by general and common sense principles. The nervous system seems sometimes to be at fault. It is here that rest is followed by the happiest results—rest on the back for an hour at a time, at intervals; but, more than all, complete bed rest for some days at the menstrual epoch is demanded, with such other means as will lead to diminish a special irritability, if such a cause is suspected.

What steps shall we take to avert a threatened abortion? The cardinal symptoms indicating this event are hœmorrhage and grinding pains, often at first referred to the sacral region, and later on, occuring in the hypogastrium.

It is true that abortion may happen without both these symptoms existing together, and hence if in a known or suspected case of early pregnancy only one of these symptoms presents itself we may at once place the patient on her guard, and prescribe at least one very important line of treatment viz., perfect rest in bed on the back. It is quite impossible in most cases to determine whether the ovum is dead or not, and yet if we can once feel assured that it is, our line of treatment must be quite different from that we would pursue if the case is one of slight separation of the decidua; because in this latter case we may properly, and with good prospect of success, hope to arrest the process that is going on, while in the former we ought to encourage its expulsion.

In the cases of repeated abortion where we know how readily the uterus expels its contents, the slightest show of blood-stained discharge must be regarded as the danger signal; albeit we are aware how many pregnant women lose considerable quantities of blood without apparent inconvenience, or without in any way interfering with gestation.

Complete rest in bed on the back must be enjoined, and avoidance of

all excitement; plain, easily-digested food allowed; and the exhibition of those drugs known by experience to diminish uterine irritability, and generally to prevent muscular contraction. We have in opium a powerful means for fulfilling these indications, and it is well known how great a tolerance there exists in these cases for the drug. It is therefore to be given in full doses, and repeated sufficiently often to keep up its effect. Solid opium, morphia by the mouth or hypodermically, laudanum per rectum or in mixture, and also suppositories, may be used in such a case, at the discretion of the practitioner. Viburnum also has been highly lauded; pot. bromide is often very useful. These measures frequently avail to stave off the abortion, and if they do, we should insist on the patient remaining in bed a week at least after the symptoms have entirely disappeared, and to resume her ordinary mode of life and avocations gradually, and with care, to avoid all those causes which tend to a recurrence of the symptoms. Sexual exercise must be prohibited for a time. I regard this as imperative, and I am satisfied that by being indulged in it is constantly the cause of a recurrence of the symptoms after a successful treatment on the lines above indicated.

If in spite of treatment the symptoms persist or increase, as shown by greater and more frequent pain, increase of discharge containing clots, and accompanied by amniotic fluid, and on examination we find a soft, patulous os with a dilated cervix, and perchance the presentation of a soft mass of membranes therein, we may conclude that the abortion has become active, as distinguished from threatened; and while it is true that such cases have often been known to become self-arrested and pregnancy continue uninterrupted, yet the rule is that abortion occurs, and our treatment ought to be directed towards effecting that result.

How do we conduct a case of actual abortion? The great desideratum is to secure the throwing off of the ovum with its membrane entire. This once assured, the treatment is, in a large majority of cases, very simple.

In primiparous cases my experience has led me to regard the "let alone" policy as the wisest, as in them we rarely find hœmorrhage excessive, owing to the slow dilatation of the cervix and the complete manner in which the ovum fills the canal, thus affording the best safeguard against undue hœmorrhage. It is nature's tampon. If the pains are regular and good, nothing is demanded except rest in bed. I am not in favor of even vaginal douches in such a case, unless the lochial discharge is offensive, and then I favor weak solutions of permanganate of potash in boiled water, and a good pad of sublimate jute to receive the discharge. If the pains are not good, then the exhibition of a good preparation of ergot will assist matters. It is important to secure the

expulsion of the ovum as quickly as possible, because the longer it remains *in utero* the greater the disintegration of the membranes and the formation of septic fluids, and consequently of their absorption through the veins and lymphatics in the vicinity. It is notorious, however, that the process of expulsion in the these cases lasts often several days. Even so, if the lochia remains of good quality and is not offensive, and the patient's temperature remains normal, or nearly so, with a pulse under one hundred and no chills, I am entirely opposed to active interference in any manner as regards the removal of the ovum. Any interference will militate against what I said at first was the great desideratum, viz., the discharge of the ovum entire.

In cases where the hœmorrhage is excessive, and is coming away in clots, and especially where the patient is a multipara, the vaginal tampon, properly applied and tucked well around the cervix, is a useful means of assisting the process of dilatation. It likewise, by preventing the continuance of hœmorrhage, allays the patient's fears. It saves much valuable time to the practitioner, and when the patient lives at a distance, is necessary to ensure her safety. I know of few more comforting and consoling moments than retiring to rest after an anxious hour or two towards the mystic hour of midnight, leaving a vagina comfortably packed with an aseptic tampon, and giving a promise to call in the morning.

A different picture is presented to us when the amniotic sac ruptures and the ovum is discharged minus the decidua. It is here that our judgment, experience, and patience are often severely taxed. To control the hœmorrhage, which is usually severe in these cases, I am in the habit of administering galic acid and ergot, combining a little morphia and spirits of chloroform with it if the pains are severe and hard to bear. The morphia allays the acute character of the pains, while it does not altogether arrest them, and, if the cervix is not yet dilated, no good can accrue by permitting undue suffering, and until it is dilated we cannot expect the ovum to be discharged. This I say in defence of the addition of any preparation of opium to the mixture, which, according to my previous remarks would be contraindicated when the abortion is inevitable. The tampon I have found to be a useful measure in these cases, as limiting the hœmorrhage, and, I believe, promoting dilation of the cervix; but it ought to be changed every four or six hours, according to the severity of the pains and the amount of the hœmorrhage. Many a time have I pursued this course, and on the removal of the second or third tampon found the decidua wholly discharged and lying in the vault of the vagina, to my entire satisfaction and complete peace of mind. The case, however, does not always pursue the amiable course; the bleeding persists, the patient is

getting weaker, the pains are diminishing, and still the decidua remains *in utero*, and no doubt are the direct cause, by their incomplete separation, of the continued and often alarming hœmorrhage.

What are we to do? It is plain we must interfere and effect their removal. My own partiality is for the index finger. It is a natural curette, if it is clean, with a sentient surface at one end, and connected at the other with an educated brain. It is freely movable at will, and altogether is admirably adapted to scoop out the cavity of the uterus; but, alas! sometimes it is too short to fulfil its functions.

The description we read in books as to the facility with which we can scoop out the uterus with the finger is all nonsense. We are told to insert it up to the internal os, then to go up one wall clearing it off, then across the fundus from one corner to the other, and, finally, down the opposite side, sweeping everything in its path. The grand result of this often corresponds to the "Frenchman and the Flea;" "You put your finger on it, and it's not there." Still it is a useful act, and in a soft, patulous cervix with yielding abdominal walls, and patient who wont resist you all she knows how, it often succeeds, and we are rewarded with a handful of membranes and a rapidly ceasing hœmorrhage.

I do not think much good occurs from immediately washing out the uterus, as is so often advised. Such, at all events, has not been my practice unless the character of the discharge demands it. An offensive discharge, a chill and a rise of temperature following the abortion, would indicate to me that a douche and an intra-uterine one was demanded. So far I have favored the carbolic acid and permanganate of potash for this purpose. I have not used peroxide of hydrogen for this purpose, but its excellent reputation as a destroyer of germs and pus points to it as a valuable means of effecting the object we have in view. I have not spoken of the curette or the placental forceps as a means of removing the contents of the uterus, because they are only means of effecting the same purpose for which the finger is used. In many cases, they are an unfortunate necessity. In all cases they must be used with great care and skill; and in some cases they are positively unjustifiable.

I forbear to speak of the result of neglected abortion. The subinvolution, the leucorrhœa, the menorrhagia, the sacral pain, and the general malaise and the invalidity unite to compose a picture often the result of gross ignorance, or, what is more to be deplored, gross carelessness, on the part of some one; yet nevertheless a field full of honor, of good will, and of handsome fees, reaped with zeal into the garners of our everlasting friends, the gynecologists.— *Canadian Practitioner.*

PHARMACY.

THE U. S. P. SYRUP AND SOME OTHER PREPARATIONS OF THE HYPOPHOSPHITES.

READ BEFORE THE R. I. PHARMACEUTICAL ASSOCIATION BY JAMES O'HARE, Ph. G., PROVIDENCE, R. I.

SOME time since, I received a prescription for tinct. nucis vom. with syr. hypophos., U. S. P. and a few minutes later one for syr. hypophos., calc., Gardner's. On looking at the great array of hypophosphite preparations on my shelves, it occurred to me that a short paper on *the hypophosphites and preparations thereof* would not be undesirable. There are more than fifty of these proprietary preparations of the hypophosphites, simple and compound, in general demand, and the physicians are almost constantly in receipt of literature, calling attention to their merits and describing conditions in which their use is indicated. The existance of these preparations is, to my mind, a reflection upon the skill of the retail pharmacist, as well as a continual annoyance and source of expense. This might all be remedied, I think, if the pharmacist would call the attention of the physicians with whom he is acquainted, to the fact that he is fully equal to the task of making as good, and perhaps better, preparations, for notwithstanding the assertions of these manufacturers, that their products are perfect, the contrary is the case, as we all know from expensive experience.

The use of hypophosphites in the treatment of tuberculosis and diseases of like character was suggested by *Dr. Churchill*, in 1857, and that they possess considerable therapeutic value is evident from the fact that their use since that time has been constant.

The pharmacopeial preparations of the hypophosphites are *syr. hypophosphitum* and *syr. hypophosphitum cum ferro.* In the N. F. we have a *compound syr. hypophosphites*, the formula of which was devised in compliance with a request from many physicians for a comp. syr. of known composition, which would replace a popular proprietary preparation.

The U. S. P. syr. of hypophosphites has been a source of trouble to some pharmacists, because of a tendency to precipitate. This precipitation is not confined to the U. S. P. article, but occurs in other preparations of the hypophosphites under certain conditions, these conditions being: in contact with air, exposure to sunlight, extreme changes in temperature and impurities in salts used. The three former conditions may easily be guarded against; the matter of existence of impurities

and their determination is but a little more difficult and can be readily done by applying the U. S. P. tests. These tests I do not propose to mention, and will only say to those who have never made use of them, that they are very easily applied, and require only such reagents as are found in any drug store. The impurities found are usually carbonates, due to faulty manipulation during manufacture, or phosphate formed by oxidation of the hypophosphites, the change being gradual, from the hypophosphite, which is soluble in 6.8 parts of water at 15° C (59° F), to the phosphite which is less soluble, and eventually to the phosphate which is comparatively insoluble. To secure solution of this residue, the pharmacopeia directs the use of citric acid, an addition which I believe to be undesirable, as it is usually present in very small amounts, and being generally a phosphate or carbonate of calcium or both, would appear to be an impurity in the finished preparation, if the amount be infinitesmal and is removed by filtration, the therapeutic value of the preparation will not be appreciably diminished; if the amount present is considerable, it should be separated by the subsequent filtration directed in the U. S. P. formula, its weight, and that of the original quantity of H. C. relatively determined, the proportionate amount of impurity will be evident, and a sufficient amount of H. C. added to compensate for loss. Thus, if the quantity of H. C. used be 1,000 grains and the weight of the residue be 20 grains or 2 per cent. the additional amount of H. C. necessary, will be 20 grains or more accurately 20 2-5 grains.

To determine whether or not the precipitate found in syr. hypophos. when subjected to conditions mentioned above is carbonate or phosphate or both, dissolve precipitate in dilute muriatic acid and add successively ammonia to saturation and carbonate of soda. If a precipitate appears on addition of first reagent, a phosphate is present, if with the second reagent, a carbonate. If both reagents afford precipitates, phosphate and carbonate are both present.

When the U. S. P. syrup is kept for a considerable period under certain conditions, an unpleasant odor is developed. This is due principally to the use of ordinary refined sugar, which contains ultramarine blue added for the purpose of overcoming the yellow tinge (blue and yellow are complimentary colors). Ultramarine contains sulphur in combination (probably as sodium polysulphide), and on contact with acids, H_2S is developed. When there is any invert sugar or glucose present, an acid reaction is acquired, this being probably due to products caused by a species of fermentation induced by micro-organisms. Acetic and formic acids are also present occasionally. This unpleasant change may be prevented by using A sugar, which is refined sugar before addition of ultramarine.

By using distilled water, A sugar and hypophosphites as suggested above, keeping the syrup in a well stoppered bottle not too large, and not exposed to light, you will have an entirely satisfactory preparation therapeutically and pharmaceutically, and superior to any of those on the market.

As the physician sometimes desires to use preparations of the hypophosphites officinal other than those, I submit a few formulæ which will make elegant, permanent and palatable products.

GLYCERINUM HYPOPHOSPHITUM

℞ Calc. hypophos. . . . . grs. 384;
Sodii hypophos. . . . . .
Potass. hypophos. . . . . aa grs. 256;
Aq. fervens . . . . . ʒ vi;
Aq. aurantii. flor. . . . . ʒ i;
Ol. amygdal. amar. . . . . m. 2.—M.
Glycerine, ... q. s. ad. ft. ʒ xvi.

Dissolve salts in boiling water, filter and add the other ingredients.
Each fluid drachm contains 3 grs. H. C., and two grs. each of H. S. and H. P.

SYR. CALCIUM HYPOPHOS.

℞ Calcii hypophos. . . . . grs. 128;
Aq. destil. . . . . ʒ viij;
Sugar . . . . . ℥ xij.

Dissolve H. C. in aquæ, filter and dissolve sugar by percolation.
Each fluid drachm contains 1 gr. H. C.

SYR. SODIUM HYPOPHOS.

℞ Sodii hypophos. . . . . grs. 128;
Aq. destil. . . . . ℥iij.

Disolve, filter and wash with one drachm of aqua destil. and add sufficient syr. simpl. to make one pint.
Each fluid drachm contains 1 gr. H. S.

SOL. HYPOPHOSPHITES (ACID.)

℞ Calc. hypophos. . . . . grs. 256;
Sodii hypophos. . . . . .
Potass. hypophos. . . . . aa grs. 128;
Quin. hypophos. . . . . .
Manganese hypophos. aa. . . . . grs. 32;
Ferri hypophos. . . . . grs. 64;
Strychn. hypophos. . . . . gr. 1;
Glycerin. . . . . ℥ xij;
Sol. acid hypophos. . . . . ℥iv;
Aqua. q. s. ad. . . . . ʒ xvi—M. Sec. art.

A boy whose leg was repaired in New York by grafting some skin from a dog complains now that his shin barks easily.

EXAMINATION OF MARKET SAMPLES OF POWDERED EXTRACTS OF BELLADONNA, STRAMONIUM AND HYOSCYAMUS.

READ BEFORE THE R. I. PHARMACEUTICAL ASSOCIATION, BY CHARLES E. GREENE, Ph. G.

THE isomeric alkaloids, atropine, daturine, and hyoscyamine, which are contained in deadly night-shade, thorn apple and henbane and others of the solonaceæ are also known as the mydriatic alkaloids and are classed as motor-excitants.

The researches of *Ladenburg* and others (1879-1884), have placed this group af alkaloids, distinguished by the active dilatation of the pupil of the eye, as isomers of a common formula, viz.:

$$C_{17} H_{23} NO_3.$$

These alkaloids are termed tropeines, which signifies the union of a basal tropin with tropic acid.

The alkaloids of the midriatic group, like the aconite group of alkaloids, and like cocoaine, must be treated with a clear understanding of the fundamental fact common to these groups, that they are saponifiable bodies, a fact which throws most welcome light upon the long-standing difficulty of preserving them intact during operations for their separation.

Atropine vaporizes at 140°C, giving white fumes and an oily sublimate. Without odor it has a disagreeably bitter and acrid taste. The solution for application to the eye, according to *Prescott*, should never exceed 1 per cent. and for testing of mydriasis should be more dilute than this.

The drugs taken for this subject were :

(a) Belladonna Folia. Nat. Ord. Solonaceæ. Species:—Atropa Belladonna. It is a native of Southern Europe where it grows along walls, among dirt and rubbish, and its leaves are collected in June and July when the plant is in flower. Common names:—"Dwale," "DeadlyNight-shade," "Wolfsbane."

(b) Stramonium Folia. Nat. Ord. Solonaceæ. Species:—Datura Stramonium. Formally came from Asia. Grows in waste grounds and is a well known weed. Common names:—"Thornapple," "Jensen," Jamestown Weed."

(c) Hyoscyamus. Nat. Ord. Solonaceæ. Species:—Hyoscyamus Niger. Its habitat is the U. S. having formally come from Europe. Common names:—"Black-Hog-Bean," "Henbane," said by *Aelian* to be poisonous to swine.

I made of each a soft extract from a No. 60 powder by U. S. P., and obtained from belladonna 33 per cent.; from stramonium 29 per cent.; and from hyoscyamus 26 per cent. of extract.

The powdered drug I obtained from a prominent wholesale drug house near Boston and assayed each lot, for which I refer you to tables A, B and C.

The market samples of (5) powdered extracts which I assayed, part were obtained from wholesale houses in Boston and some from the manufacturers direct from their laboratories.

Notable differences were noted in color, smell, and general appearance of the powders. The methods used for assaying the powdered drug were as follows:

Took 5 gms. of the powdered drug; placed it in a 100 c. c. flask and measured into the flask exactly 100 c. c. of *Prollius fluid* mod. which I made up as follows:

℞ Conc. ether . . . . . 250 c. c.;
Chloroform . . . . . 90 c. c.;
Alcohol . . . . . 25 c. c.;
Conc. sol. ammonia . . . . . 10 c. c.—M.

Set aside and macerated for 12 hours, shaking every 15 to 30 minutes; decanted exactly 50 c. c. of the clear solution; washed out the alkaloid with successive portions of 2 1-2 per cent., $H_2 SO_4$ until the mother-liquor gave no test with "*Mayer's reagent*" made thus:

℞ Mercuric chloride 3.3865;
Potass. iodide 12.2500;
H_2 O. D. q. s. ad. . . . . 250 c. c.—M.

I made acid solution faintly alkaline with $NH_4 OH$, and washed until free from alkaloid with $CH CL_3$, transferring the chloroformic solution to tared flasks and weighed. For determined percentage of total alkaloid see tables A, B and C.

For assay of powdered and soft extract I used the following method:—Took 2 gms. of extract; placed it in a 2 inch capsule and dissolved in H_2O Dist., $CH Cl_3$ and alcohol (as small amount as necessary). Transferred to an 8oz. separator made faintly alkaline by the addition of a few drops of NH_4 OH, and washed with successive portions of $CH CL_3$ at first 15 c. c., afterwards 10 c. c. until free from alkaloid, which was determined by evaporating a few drops on a watch glass, making acid with a few drops of $H_2 SO_4$ (5 per cent.) and adding 1-2 drops of *Mayer's Test Solution.* Each of the above washings of chloroform were passed through two separators containing 5 c. c. of 10 per cent. $H_2 SO_4$, shaking thoroughly each time.

This acid solution of alkaloids was then made faintly alkaline with $NH_4 OH$ and the alkaloid washed out with chloroform, using 15 and 10 c. c. respectively, until the alkaloid was all extracted. Evaporated

the chloroformic solution at a low temperature, dried, cooled and weighed. For estimated percentage of total alkaloid see tables A, B and C.

As the leaves of belladonna, stramonium and hyoscyamus vary much in the percentage of alkaloids present in almost every sample, and in making and preparing their extracts, where various amounts of heat are employed, requires such close attention, with the same drug under the same condition, it is almost impossible to obtain two extracts similar in per cent. of atropine daturine or hyoscyamine, so valuable an extract and so strong a preparation ought to be assayed to some fixed standard so that the physician may be sure what strength of alkaloid he is prescribing in each dose he deals out.

ASSAYS OF EXTRACTS OF BELLADONNA LEAVES.

SAMPLE MADE	ASSAY BELLADONNA LEAVES.	YIELD IN SOFT EXTRACT.	ASSAY EQUIV. SOFT EXTRACT.	ASSAY ACTUAL EXTRACT.	ASSAY EQUIV. POWD. EXTRACT.	ASSAY ACTUAL POWD. EXTRACT.
	0.364 %	33 %	0.363 %	1.09 %	0.360 %	1.08 %
MARKET SAMPLES						
NO. 1,	———	———	———	———	———	0.10 %
NO. 2,	———	———	———	———	———	1.35 %
NO. 3,	———	———	———	———	———	0.92 %
NO. 4,	———	———	———	———	———	1.20 %
NO. 5,	———	———	———	———	———	0.98 %

ASSAYS OF EXTRACTS OF STRAMONIUM LEAVES.

SAMPLE MADE	ASSAY STRAM. LEAVES.	YIELD IN SOFT EXTRACT.	ASSAY EQUIV SOFT EXTRACT.	ASSAY ACTUAL SOFT EXTRACT.	ASSAY EQUIV POWD. EXTRACT.	ASSAY ACT. POWD. EXTRACT.
	0.50 %	29 %	0.48 %	1.40 %	0.48 %	1.40 %
MARKET SAMPLES						
NO. 1,	———	———	———	———	———	0.94 %
NO. 2,	———	———	———	———	———	1.10 %
NO. 3,	———	———	———	———	———	0.48 %
NO. 4,	———	———	———	———	———	0.89 %
NO. 5,	———	———	———	———	———	0.72 %

ASSAYS OF HYOSCYAMUS LEAVES.

SAMPLE MADE	ASSAY HYOS. LEAVES.	YIELD SOFT EXTRACT.	ASSAY EQUIV SOFT EXTRACT.	ASSAY ACTUAL SOFT EXTRACT.	ASSAY EQUIV POWD. EXTRACT.	ASSAY ACT. POWD. EXTRACT.
	0.18 %	26 %	0.16 %	0.41 %	0.16 %	0.41 %
MARKET SAMPLES						
NO. 1,	———	———	———	———	———	0.50 %
NO. 2,	———	———	———	———	———	0.40 %
NO. 3,	———	———	———	———	———	0.37 %
NO. 4,	———	———	———	———	———	0.40 %
NO. 5,	———	———	———	———	———	0.20 %

Hygiene and Legal Medicine.

SANITARY LEGISLATION IN RHODE ISLAND.

READ AT THE 82d ANNUAL MEETING OF THE RHODE ISLAND MEDICAL SOCIETY, JULY 6, 1893, BY CHAS. H. FISHER, M. D., SECRETARY OF THE STATE BOARD OF HEALTH.

MR. PRESIDENT: In compliance with your urgent request, I have prepared a paper with the intent of presenting, in part specifically and in part in a general way, the proceedings of the General Assembly of the State, during the last two hundred years, in matters appertaining to sanitation and the promotion of the public health.

The Acts of the early colonists in General Assembly convened, relating to matters concerning the public health, were few and far between. Such matters were designedly left to the town councils as soon as the different towns were incorporated, occasionally, however, the exigency of circumstances seemed to demand sanitary legislative action, that took in one only, or several, or all of the towns.

I shall refer specifically to such Acts as I have found in the schedules of the General Assembly up to the beginning of the present century.

Obviously, it would not be proper to give the full text, except in one or two instances. The purport of each will, however, be fully given.

The first Act found on record having any relation to the saving of life, and probably an equal relation to the saving of property, was

enacted May the 4th, 1698. Its enforcement was, doubtless, intended to apply principally to the towns of Newport and Providence.

The Act required, under a fine of one shilling per month, until the law was complied with, that every dwelling house should be supplied with at least one good ladder of sufficient length to reach the ridge of said house and be continually kept in repair on the premises.

The first Act relating to the Registering of Marriages, Births and Burials, was passed Oct. 29, 1701. This Act required that the Intentions of Marriage should be posted in some public place in the town in which each party resided, for the space of fourteen days, under a penalty of five pounds in money or three months imprisonment. Births and Burials to be registered in the town clerk's office of the town in which they occurred, and persons amenable, to be fined twelve pence per month, for each month of non-compliance.

"An Act to prevent the spreading of Infectious Sickness," was passed Feb. 27, 1711; it was an embryo quarantine Act, having relation to the importation of infectious diseases, (small pox only being mentioned by name), by way of the sea and from vessels with contagious disease on board or coming from a port where contagious disease was prevalent. The purport is the same, and the wording quite like the first sections of Chapter 81, of the present Public Statutes.

August 10, 1721, there was passed "An Act to prevent the smallpox from being brought into this Colony from the town of Boston," with the following preamble:

> Whereas; the smallpox is very prevalent in the town of Boston, and is very contagious and mortal, the which if it be brought into this government may prove very destructive to the trade thereof, and will endanger the lives of some thousands of persons, if timely care be not taken to prevent the same."

The Act provided for "the airing and cleansing of all goods, wares and merchandize, imported into the colony from Boston and other places where the smallpox is, or may be prevalent, and the detention of all persons from such places, at the borders of the colony, before entering, the postman only excepted."

May 1, 1722, the above Act was reaffirmed and continued, with the proviso that "such goods, wares and merchandize as would not hold or retain any infection, should be delivered to the owners forthwith."

Oct., 1727, (day of month not given) town clerks were authorized by special Act "to sue for and recover the fines due from persons for neglect to register a marriage, or the birth or death of a child."

In October, 1730, it was "ordered and voted, that William Anthony, Esq, be allowed and paid out of the general treasury the sum of twenty pounds, for his extraodinary care, trouble and time spent in ex-

amining people who come from Boston and giving certificates in the time of smallpox."

In February, 1739, "it was voted, that, Whereas; the town council of Portsmouth, in the county of Newport, represent that several families in said town had been visited with the small-pox, which had created a very great charge to the inhabitants thereof, and

Whereupon; it is voted and ordered, that the sum of fifty pounds be allowed to the said town out of the general treasury towards defraying the said charge. And also voted, that as the town of Jamestown had been at great charge and expense in taking care of the family of Indians that had the small-pox, and also in the building of a house on Dutch Island, to prevent the spreading of said distemper, and

Whereupon, it is voted and ordered that the sum of forty-seven pounds, eight shillings, be allowed to the town of Jamestown, out of the general treasury, towards defraying their charges."

At a Session of the General Assembly, convened Feb. 14, 1743, a very comprehensive Act was passed relating to the prevention of the introduction of infectious diseases, and providing quarantine regulations with considerable detail of methods of procedure. It covered in print six pages large octavo, and included in a large measure the provisions of Chapters 81 and 82 of the Public Statutes relating to the same subjects, as they now stand.

In August, 1747, an Act was passed prescribing methods of recovering fines for violation of the laws in regard to small-pox and other infectious distempers.

In October, 1748, it was enacted that "any physician who shall refuse or neglect to perform any professional duty lawfully required of him by authority, shall forfeit the sum of one hundred pounds."

The following resolution was passed by the General Assembly in October, 1751:

"Whereas, the town of Providence did, by Stephen Hopkins, Esq., one of their deputies, represent unto this assembly, that in and near said town for some time past there hath been, and still is carried on, a considerable trade by sea, whereby the smallpox hath of late been very often brought into said town, and as there is no pest house in that part of the colony for the receiving such infected person, there is very great danger of the distemper's spreading, which, should it happen, would be of very fatal consequence to this colony.

It is therefore voted and resolved that the sum of six hundred pounds be allowed and paid out of the general treasury toward building a pest house, for the end and purpose aforesaid."

In February, 1777, by Act of the General Assembly, "a house in North Providence, about three miles from the market in the said town of Providence, was leased for the purpose of a pest house to which any persons taken sick with small-pox in the said town of Providence should be taken; and also liberty was granted to a suitable person to inoculate

those who live in said house and have not had the distemper, if they have an inclination therefor; or such as may be employed as nurses at said hospital."

It was also voted and resolved "that upon any person's being carried into said house, who may have taken the small-pox in the natural way, that the tenant, his family and the nurses may be inoculated, and that the same be under the direction of the town council of the town of Providence, and that they request General Spencer to place the necessary guard."

In July, 1777, *it was voted and resolved*, "that the several towns within this State be and they are hereby permitted to erect hospitals within their respective towns for the purpose of inoculating for the small-pox, under the regulations and restrictions contained in an act heretofore made and passed granting permission for erecting hospitals for the purpose aforesaid."

A noted divine, at the commencement of a lecture in this city, said: "Philosophers speculate upon whence we came, theologians speculate upon where we shall go, but it is sufficient for the present, that we know that we are here," and may properly consider the circumstances of the present. In the spirit of that sentiment it may be not only proper, but of greater interest and profit to us, if we leave the past to take into consideration the status, the purport and purpose, of the sanitary laws of the State as they now stand. As the object of these sanitary laws is to protect communities from the invasion of infectious diseases, and the person from exposure thereto when present, and by various measures and methods, to promote the health, and the preservation of the strength and the life of the individual, and thereby of the entire people, and insure thereby the best welfare and stability of the State, it would seem that a wise prudence and a judicious regard for the best interests of the State, would impel those who make the laws, to endeavor to make them as complete as possible.

That such is the rule few sanitarians are willing to admit. In this State, under existing circumstances, I think we may be thankful even for such sanitary laws as we have. The supplemental municipal ordinances of the various towns relating to sanitary needs, and the proceedings therefrom, add greatly to the safety of the communities and the State, and to them the public must largely look for adequate protection.

The personal right of private judgment in matters of conscience held by the colonists of Rhode Island, was not wholly limited thereto, but, as seems evident by the proceedings of the members of the early sessions of the General Assembly, the equal municipal right was quite largely recognized in relation to matters concerning the civil government.

The acts of incorporation of the several towns, original and consecutive, granted in effect, complete and sovereign control over all matters of internal police, to the inhabitants thereof. The town council was made the embodiment of the town. That sentiment of concession, by members of the General Assembly, to town autonomy, has been entertained through all the years, and prevails to-day. We shall not question the right and justice of entire self-government in the towns, except in so far as that stands in the way of securing the best public health and public safety.

As individuals have no right to use or maintain anything that endangers the health, or life, or even the property of other individuals, so towns may not justly allow by reason of neglect or willfulness, the existence of conditions prejudicial to the safety either of its own citizens or the citizens of other towns. In such cases there ought to be statute laws, and an enforcement of the same by authorized agencies.

I have no intention, however, of lapsing into statements of the general principles of common law so well known to you.

As to the rights and powers of town councils at the present time under legislative authority relating to sanitary measures, a statement of the principal points may be given in epitomized sentences.

The town councils of the several towns, and the boards of aldermen of the cities, are the statutory boards of health. The town and city councils may, however, appoint special boards of health. (Chap 38, Sec 14, Pub. Statutes, Chap. 494, Sec. 7, Pub. Laws.) The town councils may, (not shall), make such rules and regulations as they shall judge proper, for the preservation of the health of the inhabitants thereof; for the prevention and abatement of nuisances; for the removal of the causes, and the prevention of the introduction and spread of any contagious or infectious disease therein; either by removing the inhabitants of their respective towns, or forbidding or regulating the ingress or egress of persons to and from the same; and in seaport towns, may make rules and regulations respecting quarantine.

By *special* legislative provisions, town councils may make ordinances relating to the slaughtering of animals, bone boiling, swine keeping, burials, privy vaults, sinks, sink-drains, cesspools and the outlets thereof, and may provide for the summary removal or reconstruction of such as are deemed prejudicial to the public health, and of any and all insanitary conditions and circumstances, which the oversight of human health implies.

They may prohibit burials in compact parts of towns; may prohibit the manufacture of, or working in, any article or substance the material of which is injurious to the health of the neighborhood; they may order the isolation of the sick with infectious diseases, the disinfection

of persons, materials and premises; may provide pest houses and police for guarding infected premises; provide medical attendance for the infectious sick, and provide otherwise for the preservation of health, the prevention and restriction of disease, as they may deem needful and expedient, and to any extent and at any expense to their respective towns and in the exercise of their sovereign powers, only within the limitations of the constitution. They may pass ordinances to prevent the spread of infectious diseases among cattle; and may appoint inspectors of soda, saleratus and cream of tartar, inspectors of milk and vinegar, whose duties are set forth in the Public Statutes.

They may make regulations in respect to safety of life from fire, fireworks, firearms, careless driving of horses, habitual drunkeness, construction of public buildings, needful stairways or fire escapes, and generally any and all, ordinances and regulations deemed necessary for the protection of health and life.

In addition to the powers conferred on town councils in relation to the promotion of the public health which are *optional*, there are also duties imposed which are *mandatory*.

It is enacted by the General Assembly that town councils, "*Shall* affix penalties for the breach of the rules and regulations by them made;" "shall provide for the recovery of fines imposed;" shall provide annually for the gratutious vaccination of the inhabitants thereof; *shall* provide a suitable number of physicians to vaccinate as aforesaid;" and when notified of the suspected existence of smallpox at any place in the town, *shall* employ a physician to make examination, and if such disease shall be found, shall cause a flag to be put up to give proper notice, provide a guard and otherwise establish suitable quarantine. In seaport towns, the town councils *shall* appoint a physician to visit and examine any vessel that may come to anchor within the jurisdiction of the said towns respectively, if having, or suspected of having, any infectious disease on board or if coming from any port or place where any dangerous infective disease was largely prevalent, and *shall* put every infected vessel under quarantine, and shall see that all the provisions relating thereto and specified in detail in the Public Statutes, are complied with. The health officer of the city of Newport has authority concurrent with the town councils of the several towns in the county of Newport bordering on the public waters of the State, in all matters relating to quarantine.

It is provided by the General Statutes, that the town council of every town "*shall* appoint a health officer, who shall be the agent of the town council for making all sanitary inspections, and have equal authority for a limited time, in respect to certain nuisances."

That by and through the school committees of the several towns, they

"*shall* make provision for the instruction of the pupils in all schools supported wholly, or in part, by public money, in physiology and hygiene, with special reference to the effects of alcoholic liquors, stimulants and narcotics upon the human system."

It is hardly needful to observe that while the laws of the State are entitled to respect, there are towns that seem to have very little respect for some of them.

The State Board of Health, aside from some special lines of investigation, has no authority to enforce any law, it can act only as an advisory body, and through or by town officials. The late Act of the General Assembly in relation to quarantine provides an exception.

In regard to needed sanitary laws, it will be understood that the State has by legislative enactment, provided quarantine laws; laws in relation to nuisances, general and special; laws relating to the infectious diseases; laws relating to the vital movements of the people, to the protection of life from various causes of accidental death; laws regulating the sale and defining the quality of milk, of butter, of cream of tartar, soda and saleratus, and other articles used for food, or in the preparation of food, and of adulterations of the same; many of which may, or may not, be enforced by the town authorities to whose tender mercies they are consigned, but which, by reasonable enlargement and fair enforcement, may be made to cover nearly or quite all the sanitary needs of the people.

It is only fair to observe, however, that in a considerable proportion of the towns, the authorities have ordained sanitary rules and regulations which are quite comprehensive in scope, and fairly well enforced, and are a credit to those who have promoted them, and of large advantage to the citizens of the towns wherein they are enforced.

It will be seen that the municipalities of the State have been granted extensive rights and endowed with large powers in the direction of the promotion and the protection of the public health, *within* their respective jurisdictions.

At the same time it should be understood that they have certain duties and obligations under the common law, which extend to the citizens of other towns. Such responsibility has not been under the supervision and control of a central authority, until within a recent period, except in respect to a few specified circumstances. The central authority is still very limited. The Rhode Island idea of personal right and municipal independence is still predominant. Long life to it, if with just regard to the rights of all persons and other municipalities.

There are some laws having sanitary relations which are not dependent upon the action of town authorities, for instance, as regards the

assay of liquors, the sale of medicines and poisons, and indirectly perhaps, the law relating to medical examiners.

I should not omit to mention the bill that was enacted last year in the General Assembly, giving the State Board of Health authority to institute summary proceedings, (with the consent of the Governor), to prevent the introduction and spread of infectious diseases in the State. It is the only authority ever conferred on the Board to execute any law relating to human health.

In reviewing the entire sanitary legislation of Rhode Island, it appears that the lack of accomplishment of desired results, has been not altogether the lack of intent and letter of law, but in a very considerable measure it has been from the lack of provision for enforcement, financial and official, and the lack of ready acquiescence and obedience, on the part of officials, State and municipal. To the honor of the medical profession it should be said, that as a class, the members have been first and foremost in recognition of the right to life by State protection from infectious diseases, and the first and foremost in demanding of the Legislature on the part of the people, a proper and continued acknowledgement of such right. Public health is public wealth. *Salus populi est suprema lex.*

The following Tables are taken from the Fifteenth Annual Report of the State Board of Health of Rhode Island. They are self explanatory and speak with unmistakable certainty:

RESULTS OF THE GRADUALLY INCREASING PRACTICE OF ISOLATION AND DISINFECTION IN CASES OF DIPHTHERIA AND SCARLET FEVER DURING FIFTEEN YEARS IN RHODE ISLAND.

DIPHTHERIA.					SCARLET FEVER.				
Five-Year Periods.	Population in the Middle of each Quinquennial.	Mortality from Diphtheria.	Of Population, One Decedent in every—	Decedents from Diphtheria in every 10,000 of population.	Five-Year Periods.	Population in the Middle of Each Quinquennial.	Mortality from Scarlet Fever.	Of Population, One Decedent in every—	Decedents from Scarlet Fever in every 10,000 of population.
1878–1882 .	276,531	1,163	237	42	1878–1882 .	276,531	1,048	264	38.0
1883–1887 .	304,284	828	367	27	1883–1887 .	304,284	576	520	19.1
1888–1892 .	345,506	777	444	22	1888–1892 .	345,506	374	924	10.8

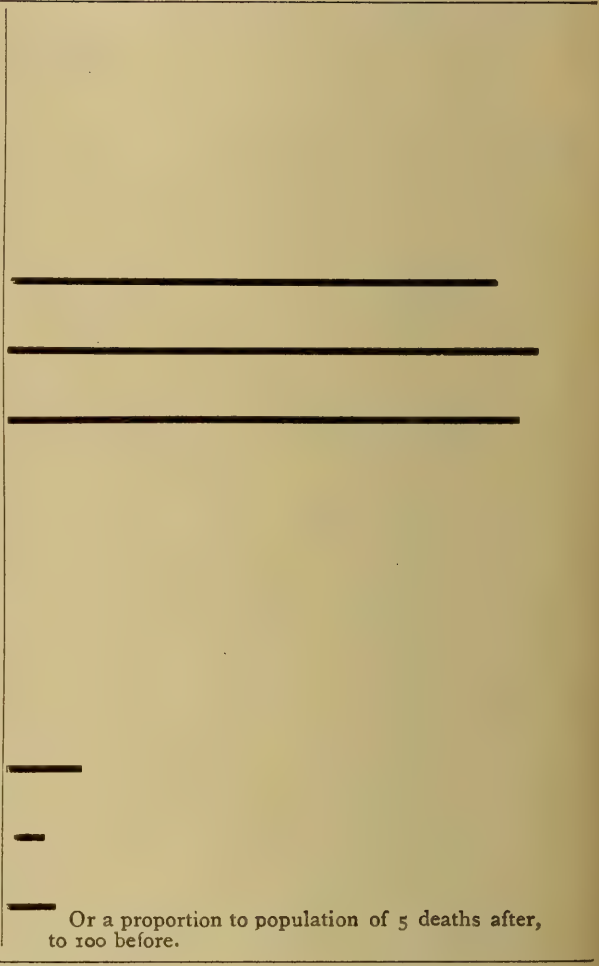
MORTALITY FROM SMALL-POX IN RHODE ISLAND BEFORE AND AFTER GENERAL GRATUITOUS VACCINATION AND COMPULSORY VACCINATION OF SCHOOL CHILDREN.

BEFORE.

Five-Year Periods.	Population	Mortality from Small-Pox.
1863–1867	184,965	44
1868–1872	217,353	48
1873–1877	258,239	46

AFTER.

Five-Year Periods.	Population.	Mortality from Small-Pox.
1878–1882	276,531	7
1883–1887	304,284	3
1888–1892	345,506	6



Or a proportion to population of 5 deaths after, to 100 before.

HISTORY.

FIELD'S POINT INDIAN RELICS.

READ BEFORE THE MORTAR AND PESTLE CLUB AT FIELD'S POINT, BY WM. R. GREENE, OF PROVIDENCE.

HOW often valuable treasures lie at our feet and in our paths while we through fault of study are ignorant of them. This is particularly true of historical treasures.

Of the multitudes who, for business or pleasure, sail on the bosom of Narragansett Bay, a few persons only are aware of the strange historic scenes once enacted on the shores. Of the hosts that flock to

Field's Point for shore dinners and ocean-tempered airs, not one in a thousand thinks of the strange events, joyous and sad, hilarious and tragic, that during unspelled centuries have occured on that beautiful promontory. Even the Squantum Club is quite unaware of the great tribal feasts of the Indians held on these shores when fish and flesh and succotash made glad the swarthy barbarian heart.

But some reminders of the ancient feasts, sports, hunts and tragedies on Field's Point survive the action of the elements and the advances of civilization. Here in the old shell-heaps, hillocks and embankments are volumes of history for those who can read them. It is a matter of regret that only a few fragments of stray traditions of those long past centuries have been preserved to us. Only the professional relic-hunter, who can track a bone or a tradition as a hunter tracks his game to its wild lair, can detect the wealth of history that belongs to this ancient shore. Among the important and highly instructive relics may be mentioned:

I. The Indian shell-heaps or Kitchen-middens. These are revealed by excavations made in the banks. They consist of strata of shells of various kinds belonging to the old molusca of the bay, also remnants of bones and rude pottery, with occasional stone implements. The strata in some cases are separated by layers of earth, indicating that some of the deposits are much older than those above them. By the way these Kitchen-middens are found in different parts of our State and all along our New England coast, some of them very large and richly repaying the closest study. The indications of these, in connection with the appearance of the oldest stone implements and the oldest graves, that there were aboriginal tribes on this coast for nearly or quite a thousand years before Europeans settled here. These shell-heaps ought to be measured and analyzed by our antiquarians and by those charged with making geological surveys of our state. It is hardly creditable to our people that we have been so regardless of the long generations of Red men that once ruled this land. Who will prepare a thorough paper on the Indian Kitchen-middens of Rhode Island? Such a monograph would throw much light on the dim, barbarian past. Around one of these huge old shell-heaps the writer might picture the wild pagan feasts that were held when perhaps several clans or tribes would meet together, it may be for political or religious purposes, or both, since they were usually conjoined.

II. But second, Field's Point contains a very remarkable and instructive Indian relic in a tolerably well preserved earth-work, a ditch and bank, reaching across the peninsula from north to south, a singular and significant relic of an old Indian custom of hunting when preparing for a great tribal or national feast. This point was chosen

as a corral, pound, or trap for the capture and slaughter of wild animals when large quantities of flesh were desired. The work of preparing it was a tribal enterprise. The dike and bank, as can be still seen, were constructed from the bay on the north to the bay on the bay on the south, and the bank was originally surmounted by stakes, poles and limbs of trees, all interwoven as in basket or wicker work. An opening was kept at the south end next to the bay. Thus the most of the promontory, all the eastern part, was enclosed by the waters of the bay and this palisaded embankment.

At the appointed time for the great tribal hunt and feast the natives, probably men, women and children, spread themselves out into the forests over hills and valleys for miles forming a semicircular line or arc of a great circle embracing miles of the country. At the concerted signal being given, all persons in the great circular line, being within hailing distance of each other, would begin to yell and scream and close in the line toward the pound, driving before them whatever wild animals, bears, deer, moose, foxes, wolves and catamounts, might be within the swept region, as fishermen draw their seine to the shore. The creatures were thus driven into the corral at the open end which was immediately closed and guarded by armed braves. Then commenced the final capture and slaying of the beasts, when arrows, spears, clubs and stones were the implements. Canoes in the bay intercepted any of the animals that attempted to swim to Kettle Point or Squantum. The incidents of these hunts, the screeching, rushing, and pursuing in the forests, the shouting, attacking and slaughtering in the corral, were highly relished by the natives, furnishing greater pleasure to them than Europeans find in having horse races at fairs or in chasing foxes in their parks. Then was prepared the feast, of fish of various scales, of molusks of every shell, of roasted and broiled meats, and of green and parched corn. A picture of one of those old hunts would be wild study indeed and a large chapter of Indian life. Equally engaging and informing would be the picture of one of the feasts following the hunt. Perhaps, after all, it was a kind of thanksgiving in a barbaric way and a means of cultivating social life.

Perhaps after doing justice to clams, oysters, fish and venison, the old men and traditionists of the tribe, the veterans of wars, hunts, and council fires, formed a circle by themselves—"a kind of Veteran Citizen's Historical Association—" and lighting their pipes, indulged in reminiscences greatly to the delight and profit of their juniors. Ah! would that the reports of the official traditionists and the stories of wars and adventures recited by the natives and Napoleons of the tribes had been preserved to us. Alas, that then, there was no Narragansett Register to publish their narratives.

III. But third. On Field's Point, as previously mentioned, in the shell-heaps are found stray fragments of native pottery and some stone tools. In different places in the soil are occasionally found spear heads, arrow points, pestles and axes. These relics of Indian handicraft vividly recall the Red man and the darkness of Indian life. Their best pots and kettles were bits of soap stone quarried in Johnston and hollowed out by granite and flint gouges. We almost seem to see these benighted work-men fashioning their weapons and utensils, and the laboring women doing their coarse cooking. What pictures might be drawn of these ancient pagan hunters, warriors, and artisans in their forests and on their shores. Their works reveal their darkness. By comparing Indian life with our own we discern the great difference in results between the faint light of nature and the bright light of revelation. Under the first the wilderness retained its darkness; under the last the desert has been made to bud and blossom as the rose. It is well to study the old pictures and the new.

IV. But Field's Point has some martial history. It received its name from John Field one of the first settlers of Providence. Being by its situation an outpost of Providence, in July 1775, a year before the Revolution was declared, the people of Providence, who took the van in the great movement for Independence, threw up on the highest crest of this cape the entrenched work called Fort Independence, and also an entrenched work on Sassafras Point and so gave King George an expression of their republican opinion.

In the war of 1812 old Fort Independence was refitted and an earthwork was extended westward, the whole forming a formidable military defence for Providence against England's boasted naval keels. At present most of the point is owned by the city and is occupied chiefly as a quarantine station and as a small pox hospital. So the beautiful promontory has played its important part in both barbaric and civilized life.

The Peace Conference.—Held at Washington, D. C., Feb. 4, to 27, 1861; at the request of the Legislature of Virginia, was attended by the following delegates from Rhode Island: Samuel Ames, Alexander Duncan, and William W. Hoppin, of Providence; George H. Browne, of Glocester; and Samuel G. Arnold, of Middletown. Mr. Hoppin was one of the Secretaries of the Convention.

Kissing the Bible.—Among the many peculiarities of Rhode Island customs, some of which are absurd and relics of the past, is one which is highly commendable and that is, that a witness may take an oath in court, or be sworn into office, without kissing the Bible.—*S. H. Allen, in The Narragansett Historical Register.*

Chemists are seldom hen-pecked husbands. They have too much experience with retorts.

OBSTETRICS.

ACCIDENTS OF LACTATION.

READ BEFORE THE HENNEPIN COUNTY MEDICAL SOCIETY, APRIL 3, 1893, BY J. H. STUART, M. D., MINNEAPOLIS.

I HAVE found the dry powder dressings often very satisfactory on the tender and eroded nipple. The oleate of zinc is of value, but aristol and europhen have given me most satisfaction, especially the last mentioned. Preparations of ichthyol, so far as I have used that remedy, are even more satisfactory because it is very soothing and is easily removed when the babe is to go to the breast. In all cases of sore breasts it is of the utmost importance to palliate the soreness and pain, else the mother will not permit the milk to be drawn fully and often enough. In cases of cracks or fissures the ideal dressing is colodion following boric acid washes, because it brings the edges of the sore together, and if permitted to remain undisturbed the healing would soon be complete. Often it will withstand even the nursing of the child for a time and then it can be removed. No child ought ever to be permitted to hold the nipple in its mouth longer than is necessary to draw the milk. The bad habit some mothers have of allowing the child to mouth the nipple for protracted periods, in some instances most of the night, should be emphatically forbidden.

During the first days as there begins to be some tenderness I have found a simple covering of the white of an egg very useful indeed, it being applied after each act of nursing, the nipple having been cleaned and dried previously.

In the ulcerative form the management is more difficult. Astringent and stimulating application are often called for. In the more obstinate and indolent forms the stick of nitrate of silver is said to be good, but having tried it oftentimes, I am less disposed to resort to it again. A shield to be used when the child is nursing greatly facilitates the cure if it works well.

In cases of sores troublesome to heal and of malformed nipples, I have nodoubt it is better to remove the babe from the breast at once and dry up the milk. This, with appropriate bandaging, can be readily and safely done; and I am not sure but children under such circumstances can be reared almost if not altogether as safely by artificial feeding.

As to breast pumps, such as I have known, they are to be shunned in every way possible. Given a common breast pump and a zealous, perservering nurse, and having greatly tortured the mother, if she does not add to the torture an abscess of the gland, it will be fortunate in-

deed. There may be an ideal pump in existence, or one may be forthcoming in the future, but I know of nothing equal to the human mouth. It may be well done by one having teeth, but perhaps some of those who have no teeth but wear plates could establish a sort of a bureau to do this kind of work to good advantage. Often, as Dr. Byford has pointed out in his excellent chapter on this subject, by simply pressing with the fingers on the areola around the nipple just over the milk reservoirs, the milk can be brought away much better than by the vigorous pulling process commonly applied.

Mammary abscesses are too apt to accompany sore nipples. Some think that they are almost if not quite always caused by toxic influence from absorption. This I think very doubtful. It may be and probably is the case that in the glandular form of abscess, especially the deep seated and multiple form, that absorption of toxic elements by the lymphatics is the exciting cause, but I have no doubt that the cause of the milk abscess is from a different source. That the inflammation attending the sore nipple is the cause of this form of abscess appears reasonable, because the swelling attending it must necessarily close more or less completely the openings of the milk ducts, and the retention of the milk in the reservoirs will very quickly beget mischief. In this instance the inflammation may extend along the milk ducts by contiguity of tissue. But in the glandular form of abscess, besides the toxic element alluded to above, the cause may belie in the physiological congestion that accompanies the advent of milk into the breast, provided this congestion be not overcome or limited by appropriate treatment. The extention of inflammation by contiguity of tissue may also account for much of the trouble in the breasts that follow or accompany sore nipples. To overcome the congestion that accompanies milk fever we should use cold applications to the swollen, hot and tender gland, administer saline cathartics, cold, in obstinate cases, give iodide of potash freely.

Mammary abscesses should not be opened until it is manifest where they are "pointing," for by opening one too early one may be under the necessity of opening it again. In the management of a gland that is suffering from abscess nothing is so important after antiseptic dressing as support and pressure. The breast-bandage is the important means of now doing more good than any other agent. Dr. Samuel L. Weber, of Rush Medical College, has an interesting and instructive article on "The Prompt and Radical Cure of Mammary Abscesses" in the January No., 1893, of the *American Journal of Obstetrics and Diseases of Women and Children.*

The profession has long recognized the value of prophylaxis particularly in reference to this matter of sore nipples and mammary absecesses.

It has sought diligently to discover some remedy or means by which these disasters may be averted. But, alas! so far it seems not very successfully.

Cazeaux, in his great work says, "The means hitherto employed leave much to be desired. I know," says he, "of no disease, against which so many ointments, solutions, etc., have been recommended; but here abundance means dearth." But all this multitude of remedies has been reduced by the process of elimination until the number now recommended is comparatively small, mainly astringents and the alcoholic washes. Of the former tannin and alum are mainly recommended and used I believe, and of the latter, brandy or whiskey or diluted alcohol or spirits of cologne. Yet even with the preservering use of these, the nipples continue to become sore, but whether less frequently than formerly, is doubtless an open question.

I have often wondered why the use of astringents was suggested in the first place. It may have been in this way: By oak bark hides are converted into leather, leather is tougher than the skin covering the nipples, then tan the nipples with tannin, or perhaps with alum which is a little speedier in converting the skin into albuminates, or leather. This is certainly good logic, but I fear bad practice, and not yet absolute by any means. This practice had its beginning in a past age when "theory" stood in front of "practice."

If you should want to toughen the hands or the skin of the face, would you propose to bathe these parts with astringents and alcoholic liquors to accomplish this end? How would the skin on these members feel "tanned" and "cooked" by such lotions? Would you not expect in this way to have chapped faces and rough, brittle hands? Would not the skin under this treatment lose its softness, elasticity and endurance? Unquestionably it would, and if this seems incredible, when again you advise the gravid woman to bathe her nipples areolæ for two or three months daily with a strong solution of alum or tannin, please try the experiment on your own hands and face, not using water, but keeping the skin gloved or clad as the breasts usually are for the same period. It might be that the practice after this would become less frequent so far as you are concerned.

What process can possibly be so efficient in rendering the skin of the hands and face or any other part of the body tough and resistent to chafing, eroding or friction of any kind, as frequent bathing with cold water, drying with a good linen towel and allowing free access to the air? Have you not had opporiunity at some time to experience this on your own person!

Here then, is, I suggest, the appropriate and efficient treatment of the breasts preparatory to nursing new born children. No other treat-

ment I believe can be compared with it in efficiency and appropriateness to the normal skin. Let us examine this mattter a little farther; if I am in error in what I am saying you will promptly point it out.

Perhaps you have read a paper that appeared in the *Medical Record* of February 11, 1893, "On the care and treatment of the nipple in the Gravid and Puerperal State," by Dr. S. Marx. The writer of this paper says: "Let the nipples absolutely alone except to wash them with cold water for cosmetic reasons, and use cotton to protect them from corsets or the clothing." The paper is highly interesting and contains advanced views on this subject. But I think it contains an error in regard to the function of the colostrum, and that a most important fact is altogether overlooked by the author. It is stated in this paper that "the epidermis of the nipples is covered with scales of dried colostrum that exudes during the later period of pregnancy, and when this protection is removed by interference we have the tender, eroded nipple, which appears bright and red and puckered, and is painful. These scales are to the nipple at this period what a scab is to a healing wound. This is nature's protection, and when we by our care and treatment before confinement remove her protection so essential to the well-being of the nipples, we are found fighting against nature." Now I believe the function commonly assigned to colostrum is to clear the intestinal tract of the neonatus of the meconium. It having abundance of sugar and oil granules in its composition, is well adapted for that purpose and not so well adapted to form a protective covering for the skin. In truth I am not sure but that its presence on the surface of the nipple, if it should escape and be found there, ought to be regarded as a collection of filth or dirt to be promptly washed off. Its composition would seem to imply this. Again granting the assumption to be correct, the colostrum is too frequently absent in quantity sufficient to be relied upon as a protection in this way. Dr. Henry J. Garrigues, "American System of Obstetrics," says: "If the nipples are not kept clean, drops of milk and old epidermal cells often form together a crust under which the epithelium atrophies and becomes exceedingly tender." This condition I think would quite likely obtain with the "colostrum scales" as readily if not more so than did the dried milk.

But there is another circumstance that has a bearing on this subject which I do dot remember to have seen considered in this connection. The nipple, we are informed, is covered with a skin containing numerous papillæ, and is abundantly supplied with sebaceous glands, as is also the areola. These sebaceous glands, here so abundant, were surely designed for a purpose. Their function elsewhere is duly acknowledged and accredited; then why not here also, especially since these glands are unusually abundant and according to Flint "during the

later months of pregnancy and during lactation become distended with a secretion containing numerous oil glolules and granules. During these periods the secretion here is always much more abundant than elsewhere." Now what does this signify? What may we suppose this sebaceous inunction was designed for, if not to keep the cuticle pliant and soft? But as has been said, it is found here at this time much more abundant than ordinarily. Is not that fact very significant? But how fares the skin elsewhere when the action of these glands is seriously interfered with? Does it not lose its electricity and its softness? Is not a soft and pliant skin just the kind needed for the covering of the nipple to enable it to endure the ordeal of nursing? Is not this condition much better suited for this service than if hardened and made brittle by a process of being tanned alive as it were? Does it not then appear evident from every point of consideration, that the sebum or sebaceous secretion was wisely designed for the auto-inunction of the nipple, to render it more enduring and resistant during the great strain of nursing?

What effect, may we inquire, is produced upon the skin by bathing and washing with alcohols and astringents? Is it not to dissolve and to destroy the very means Dame Nature has so wisely provided for the occasion? But cold water, gentle friction and proper surface ventilation are not warring against nature but are rather her most potent allies. And I may add in conclusion that were these wholesome means wisely administered by prudent mothers to the breasts of their daughters at the dawn of puberty and on, there would be fewer instances of undeveloped breasts among those who are to take on the function of motherhood, and far less liability to those unpleasant accidents now under consideration. —*Northwestern Lancet.*

MEDICAL EDUCATION IN ENGLAND.

BY EDWARD F. GAMWELL.

ENGLISH institutions are noted for their excellence. The Englishman may be somewhat more conservative than his American cousin, but he consequently has none of that haste, which, though not always, is bound now and then to make real waste. Perhaps the thoroughness and exactness of the true English aim and practice can be no better seen than by a glance at the course a young man has to pursue in England before he can take a medical degree.

In England the young aspirant for admission to medical practice must first register as a medical student with the Medical Council, whose headquarters are in London. The Council is the head of the medical profession, its membership being composed of medical men nominated by the Government and of men elected by the universities

and medical examining corporations, always men of very high standing in the profession. Before registration as a medical student, however, the young man must present to the Council a certificate of matriculation at one of the universities, or a certificate of having passed the examinations of the College of Preceptors. The College of Preceptors is at London, and is, outside of the universities, the recognized examining board in general education in England, its certificate assuring a certain standard of general knowledge.

Having thus registered, the candidate cannot come up for final examination under four years from the date of his registration. He joins some hospital of his selection, every large hospital having a medical school attached. The Medical Council will not recognize for teaching purposes any hospital of less than one hundred and twenty beds. A student generally joins his hospital at the age of eighteen or nineteen, seldom at a later age. Here at the hospital he finds that no time which he may have spent with another doctor is counted, and that his prescribed work takes all his time. The work commences about October 1st each year, and goes on continuously to about March 1st for the winter session. The summer session begins in May and ends with July, so that the student gets the months of April, August and September as vacation months.

At the end of the second winter session the student is expected to be prepared to pass his first examination for his degree. This, like his subsequent examination, is, to use an expression of the American student, no "snap." The examination is so conducted that the most vigorous methods are used for testing the student's knowledge, and it is farther noteworthy that his examiners have no object in passing him,—in fact, about one-third of all the candidates who appear for examination are ultimately rejected. At the end of the second winter session, then, the student takes his first examination, not at the hospital where he has been studying, but he must present himself for examination to an independent corporated body, the College of Physicians, or the College of Surgeons, both of London. This examination is particularly severe, requiring six days of partly written and partly oral work. At the time of a written examination the students are assigned to seats about three feet apart, having desks supplied with paper and pens. At a given time the President appears in his official gown, accompanied by the Clerk and Secretary of the Corporation. The Secretary brings in the question papers which are under seal, no one but the President and the printer (whose identity is never divulged, and who is sworn to absolute secrecy) having ever before seen them. In the presence of the students the seal is broken and the papers are distributed. Students are allowed to ask necessary questions as to points involved in the

paper. Six questions on a subject are given, and five must be answered. The time allowed is five hours at each sitting. Having one day written on a subject, the candidate for a degree must on the next day do special work in the anatomical museum upon the subject upon which he wrote on the previous day, orally answering to the examiners in attendance any questions they may address to him with reference to the anatomical and physiological specimens under examination. This method is pursued for six days, the time required for the first examination. The passing of this and a subsequent examination entitles the student to his degree. Students do not generally consider the examinations of the Apothecaries' Hall so severe as those just mentioned.

The fee for the examinations at the College of Physicians or the College of Surgeons is $48.00. If a student fails to pass, he is given another examination at the end of six months, no fee being charged at this time unless he fails, in which case the fee is forfeited. Students who fail at the second examination generally give up the idea of following the medical profession, convinced that their abilities do not warrant further trying. His first examination passed, the student returns to his hospital and does further clinical work, generally holding during his fourth year the positions of dresser and clinical clerk to the Medical Staff of the hospital. While, as stated before, examinations are not given at the hospital, occasional "quizzes" are given there in order to keep the students at a proper rate of work and to ascertain, in a general way, what progress is being made. When the fourth year is finished, the student again goes up for examination to the same board as before. This second and final examination lasts four days. The first day is taken up with written questions on surgery and like subjects. The morning of the second day is devoted to operations on the human body with an oral examination on the same; in the afternoon the student is taken to the same large hospital, other than that from which he came, and is given two cases from which all cards and other sources of imformation have been removed, being now required to take notes and to write a thesis on these cases. On the morning of the third day comes an oral examination on morbid, surgical and physiological specimens; in the evening the student must work on cases that are collected and brought into the room,—such work, for instance, as applying splints to nude subjects. The fourth day is the easiest of all. In the morning the student presents his thesis on the two cases examined on the second day, and in the evening he is subjected to a general oral examination. If successful in this final examination of four days, the student receives his diploma. The price for this varies with different corporations but is about $100 at the average rate. In cases of extreme anxiety the candidate for a medical degree may know the result of his examination on

the evening of the fourth and final examination day, but he is quite sure to be informed of the result on the following day in the ordinary course of affairs.

Before beginning practise as a full-fledged M. D., the young doctor must register his diploma with the Medical Council, after doing which he is entitled to recognition as a physician in regular practise. But young men never go immediately into independent practise, such a beginning affording no chance of success. On the contrary, they get house-surgeonships at different hospitals in and about London, or they spend a period of years in the capacity of assistant to some medical man in general practise. Independent practise is afterward generally secured by purchase. The terms of this purchase are that the new doctor shall pay to the one whose place and good will he buys, a sum representing the value of a year's practise, also the latter agreeing with the former, under bond, not to practise, after the purchase, within a stipulated number of miles of the place he has relinquished to his purchaser.

These details immediately impress upon the mind of the reader the fact that in England it is held to be of the hightest importance that the ranks of the medical profession be reinforced, not by "quacks," but by thoroughly educated and entirely competent men. It is no wonder that the English doctors are, as a class, reliable and efficient men, and no wonder that so many names eminent in the medical world are names of Englishmen. There can be no doubt about the rationality and necessity of these methods of preparation which are required before medical practise may be taken up, impressed as all are, whether doctors or not, with the importance of entrusting the health of society to competent hands. Those true doctors and truer men here in our own country who at this time are making persistent efforts to rid their honorable profession of the injury and disgrace of the "pretender," will find in the example of the mother-country inspiration to continue their efforts in behalf of right and reason, until law is made as effective here as in England for the protection and support of the medical profession as a highly important factor in national life.

Diuretic Wine for edema, general anasarca and dropsy in cardiac and renal diseases:

℞	Fluid ext. jallap, ...	ʒ iij;
	Fluid ext. squills, ...	ʒ iij;
	Fluid ext. jaborandi, ...	℥ i;
	Fluid ext. digitalis, ...	M xxx;
	Nitrate of potash, ...	ʒ iv;
	Angelica wine, ...	O ij.—M.

Sig.—One tablespoonful in water every four hours.

U. S. NAVAL LABORATORY.

USEFUL BOOKS.

We reprint below a list of books recommended by the Department of Instruction of the U. S. Naval Laboratory of New York, which may be of some service to our readers in adding to their libraries and also to show the activity that prevails in this great department of our government. The Naval Laboratory at New York was, by order of the Secretary of the Navy, of June 22, 1893, changed to the U. S. Naval Laboratory and Department of Instruction. Physicians having passed the examinations for admission to the Medical Department of the Navy, successfully, are hereafter ordered to this Laboratory for further instruction.

The course of instruction is to continue for a period of three months at least and will embrace the following subjects:

1. Chemistry, general, analytical, and organic.
2. Hygiene and sanitary science.
3. Microsopy and microbiology.
4. Military surgery and operative work.
5. Clinical medicine and hospital work.
6. Construction and ventilation of modern war ships.
7. Examination of recruits and life-saving methods.
8. Navy regulations, navy ration, hospital fund, pension fund.
9. Keeping medical records at hospitals and on board vessels of war, and blank forms pertaining to Bureau of Medicine and Surgery.

We cannot but express our profound appreciation of this new and eminently progressive move on the part of the official heads of the Navy, and see in it a valuable means of rendering the Medical Department of the Navy more efficient then ever, and it also serves as a valuable lesson for medical men who are either directly or indirectly connected with medical schools and hospitals to make their institutions more useful and modern. We reproduce the list of text books recommended, for reasons stated above:

ANATOMY.

Holden, Dissector; Henry Morris, Anatomy; Quain, Elements of Anatomy.

BACTERIOLOGY.

A. C. Abbott, Principles of Bacteriology; E. M. Crookshank, Manual of Bacteriology; James Eisenberg, Bacteriological Diagnosis; Fraenkel, Bacteriology; Jorgenson, Die Mikro-Organismen der Garunds Industrie; C. J. Salmonson, Bacteriological Technology; Nicholas Senn, Surgical Bacteriology; Sternberg, Manual of Bacteriology; G. S. Woodhead, Bacteria and their Products.

CHEMISTRY.

J. S. Adriance, Laboratory Calculations and Specific Gravity Tables; A. H. Allen, Commercial Organic Analysis; Barrister, The Chemists' Legal Handbook; Berthelot-

Explosives and their Powers ; H. C. Bolton, Quantitative Analysis (Aid to Fresenius) ; Cain, Quantitative Analysis; Castel-Evens, A New Course of Experimental Chemistry; Qualitative and Quantitative ; A. Classen, Quantitative Chemical Analysis by Electrolysis ; J. P. Cooke, Laboratory Practice ; Deschaniel, Natural Philosophy ; J. C. Draper, Practical Medical Chemistry ; Eggleston, Tables of Weights and Measures, Coins, &c.; Eliot and Storer, Qualitative Chemical Analysis ; Endlich, Qualitative Blowpipe Analysis and Determinative Mineralogy; Fowne, Manual of Chemistry ; C. R. Fresenius, Qualitative Chemical Analysis; C. R. Fresenius, Quantitative Chemical Analysis ; W. L. Gadd, Soap Manfacture ; G. Guerin, Traite Pratique d'Analyse Chemique et de Rescherches Toxicologique, etc.; Hempel, Methods of Gas Analysis; Holland, The Urine, Common Poisons and Milk ; Hurst, Painters' Colors; Oils and Varnish; A. E. Johnson, Analysts' Laboratory Companion ; W. P. Mason, Examination of Potable Water ; D. Mendelieff, Principles of Chemistry; Morley and Muir, Watts Dictionary of Chemistry ; Muter, Analytical Chemistry, Qualitative and Quantitative, Inorganic and Organic ; C. Neuber & J. Vogel, A Guide to the Quantitative and Qualitative Analysis of the Urine ; W. R. Nichols, Water Supply ; Nietzki, Chemistry of Organic Dye-stuffs ; Oscar Oldberg and J. H. Long; Laboratory Manual of Chemistry, Medical and Pharmaceutical ; Ostwald, A Text-book of General Chemistry ; Ira Remsen, Inorganic Chemistry ; Ira Remsen, Organic Chemistry ; Ira Remsen, Principles of Theoretical Chemistry ; Richter, Inorganic Chemistry; Richter, Organic Chemistry ; H. H. Roscoe & C. Schorlemmor, A Treatise on Chemistry ; S. P. Sadtler, A Handbook of Organic Industrial Chemistry ; Smith, Electro. Chemical Analysis ; Stewart & Gee, Elementary Practical Physics ; F. Sutton, Volumetric Analysis ; T. E. Thorp, Dictionary of Applied Chemistry ; T. E. Thorp, Quantitative Analysis ; Vaughn and Novy, Ptomaines, Leucomaines, and Bacterial Proteids ; Wagner, Chemical Technology ; Winkler, Technical Gas Analysis ; U. S. Bureau of Education, Rules for Spelling and Pronunciation of Chemical Terms.

EYE AND EAR.

George A. Berry, Diseases of the Eye; Sir Wm. B. Dalby, Diseases and Injuries of the Ear; Ernest Fuchs, Text-Book of Ophthalmology; H. E. Juler, A Handbook of Ophthalmic Science and Practice; S. Sexton, The Ear and its Diseases; H. R. Swanzy, Diseases of the Eye.

GENITO-URINARY.

P. A. Morrow, System of Genito-Urinary Diseases, Syphilis and Dermatology; Von Zeisel.

HYGIENE.

Adams, Sewers and Drains for Populous Districts; A. N. Bell, Climatology of the United States and Adjacent Countries; J. S. Billings, Ventilation and Heating; A. H. Buck, Hygiene and Public Health; W. B. Canfield, The Hygiene of the Sick Room; J. M. Fothergill, A Mannal of Dietetics; J. M. Fothergill, Food for the Invalid; W. P. Gerhard, The Disposal of Household Wastes; John Goodfellow, Dietetic Value of Bread; W. Griffiths, Principal Starches Used as Food; J. Johnson and J. R. Martin, Influence of Tropical Climates on European Constitution; Lathain Sanitary Engineering; G. A. F. Middleton, House Drainage; G. H. F. Nutall, Hygienic Measures in Relation to Infectious Diseases; F. W. Pavy, Treatise on Food and Dietetics; Louis C. Parker, Hygiene and Public Health; Planat, Warming and Ventilation; T. M. Prudden, The Story of the Bacteria; T. M. Prudden, Drinking Water and Ice Supplies; T. M. Prudden, Dust and its Dangers; Smith, Foods; Stevenson & Murphy, Treatise on Hygiene and Public Health; John F. J. Sykes, Public Health Problems; John W. Urquhart, Electric Ship Lighting; George

Wilson, Handbook of Hygiene and Sanitary Science; J. B. Yoe, Food in Health and Disease.

MEDICINE.

H. R. Crocker, Diseases of the Skin; C. L. Dana, Nervous Diseases; W. Allen Jamieson, Diseases of the Skin ; A. L. Loomis, Text-book of Practical Medicine ; William Osler, Principles and Practice of Medicine ; Strumpell, Text-book of Medicine ; M. Allen Starr, Familiar Forms of Nervous Disease ; Vierordt, Medical Diagnosis.

MICROSCOPY.

F. W. Mills, Photography Applied to the Microscope ; George W. Rafter, Microscopical Examination of Potable Waters ; Henri von Henrek, The Microscope, its Construction and Management.

PATHOLOGY AND HISTOLOGY.

H. Gibbes, Practical Pathology and Morbid Histology; T. H. Green, Pathology and Morbid Anatomy.

PHYSIOLOGY.

M. Foster, Text-book of Physiology; Kirk's Handbook of Physiology ; E. Klein, Handbook for the Physiological Laboratory ; A. D. Waller, Physiology.

SURGERY.

G. G. Davis, Principles and Practice of Bandaging ; Garmany, Operative Surgery on the Cadaver ; Gerster, Rules of Aseptic and Antiseptic Surgery ; H. O. Marcy, Anatomy and Surgical Treatment of Hernia ; Markoe, Diseases of the Bones ; C. W. M. Moullin, Surgery; F. Treves, Manual of Operative Surgery ; Keen & White, American Text-book of Surgery ; M. A. Starr, Brain Surgery.

THERAPEUTICS.

R. Amory, Electrolysis, Therapeutical Application; Treatise on Medical and Surgical Electricity ; Wilhelm Erb, Handbook of Electro-Therapeutics.

MISCELLANEOUS.

Bastin, College Botany ; Bissing, Botany ; A. C. Ketchum, Botany ; Packard, Elementary Zoology ; Poole, Practical Telephone Handbook ; Pope, Modern Practice of the Electric Telegraph ; Rankine, Ship Building; Seaton, Marine Engines ; W. Sligo & A. Booker, Electrical Engineering; Stevenson, On Harbors ; Thompson, Outlines of Zoology ; S. P. Thompson, Dynamo-Electrical Machinery.

LIST OF EXHIBITS SENT TO THE WORLD'S COLUMBIAN EXPOSITION FROM THE STATE OF RHODE ISLAND.

BY CHAS. H. FISHER, M. D., SECRETARY, STATE BOARD OF HEALTH.

A CHART, showing the average age at death of the male and female decedents, and the average age of the whole number of decedents, in each year for thirty years; and also the average age of all decedents in six periods of five years each, and one period of three years, 1860–1892.

The chart shows an increase in the average age of decedents in Rhode Island, during thirty-three years, of about four and one-half years.

2. A chart, exhibiting the entire mortality in the State for thirty-seven years, by classes and orders in the nomenclature of causes of

death, with the number of each cause in each year, and the proportion of each cause for the entire period.

3. A chart, exhibiting the longevity or average length of life of decedents in Rhode Island, of twenty years of age and over, engaged in different occupations, for thirty-six years, showing what occupations are seemingly most conducive to long life. Occupations having less than twenty decedents, are omitted.

4. A diagram, exhibiting the proportions of deaths from different causes of death as compared with the whole number of deaths from all causes, for twenty-five years, 1860–1884.

In this diagram it is seen that during that period, there were more than twice as many deaths from consumption as from any other cause, four times as many as from diseases of the heart, and twelve times as many as from bronchitis and diseases of the kidneys.

5. Another diagram exhibiting the proportions of deaths from the same causes for eight years, 1885–1892, shows that the proportions of deaths have changed very considerably. Pneumonia has increased about 30 per cent. while consumption has decreased more than 25 per cent. Bronchitis, diseases of the heart and of the kidneys, have also largely increased, while diphtheria and scarlet fever have largely decreased.

6. A chart, presenting the ratios of mortality from twenty-three prominent causes of death in each year for seventeen years.

7. A chart, showing the proportions for deaths of persons in the different periods of life, from under one year to ninety years and over, for thirty-nine years.

8. A chart, showing the difference in the proportions of deaths from apoplexy in the persons of native and foreign parentage, in several periods of five years each.

9. A chart, showing the difference in the proportions of deaths from consumption, in the persons of native and foreign parentage, and of males and females, in several periods of five years each.

10. A chart, showing a great diminution in the proportions of deaths from diphtheria and scarlet fever, following the increasing practice of isolation and disinfection during the last fifteen years.

11. A chart, showing a diminution of 95 per cent. in the number of deaths from small-pox, since gratuitous vaccination has been furnished by the towns, and the vaccination of the children in the public schools has been compulsory.

12. A chart, showing by angular lines in colors, the varying proportions of mortality from consumption, bronchitis, pneumonia and typhoid fever, in each year and from year to year, for thirty-three years.

13. A typographical map of Rhode Island, dimensions 4x5 feet, upon

which is delineated by lines of different colors, the routes of travel of the Intermittent Fever, following the outbreaks occuring in the years 1723, 1830 and 1880.

14. A township map of Rhode Island, dimensions 32x54 inches, showing the present locations of prevalence of Intermittent Fever in the State.

15. A set of the annual reports of the Board, complete from the year 1878, 14 volumes.

16. A set of 30 volumes of the Registration Reports, fourteen of which were prepared by the present secretary of the Board.

17. A set of four volumes of the Monthly Bulletin, 1888-1892.

18. A set of the forms of blanks used by the secretary in the collection of the returns of births, marriages and deaths in the State, 11 forms bound in cloth, quarto size.

19. A set of the forms of blanks used in the enumeration, classification and arrangement of the vital statistics of the State, for tabulation and other forms of presentation in the annual report. Large quarto bound in cloth, 13 forms.

Average size of the charts, 24x32 inches.

SOCIETY REPORTS.

MEETING OF THE MORTAR AND PESTLE CLUB.

THE regular monthly meeting of the Mortar and Pestle Club was held at Field's Point, on Wednesday, August 9th. About thirty members were present when the meeting was called to order, at 2 o'clock P. M.

President Hull presided and welcomed the members in a few well chosen words.

Secretary Gridley read the minutes of the last meeting, which were duly approved.

After some minor business was transacted the members adjourned to enjoy one of Col. Atwell's celebrated dinners.

After cigars were lighted Mr. William R. Greene read a very interesting paper on the Archæology of Field's Point, and Secretary Gridley gave a very interesting talk on the success of the Mortar and Pestle Club and kindred organizations, after which the members present arranged themselves in front of the camera and had their pictures taken.

Just before the familiar words "look pleasant" sounded on the breezes, Mr. Payne stepped forward and in a few well chosen words, presented on behalf of the members of the club Messrs. H. J. Alfreds

and A. W. Fenner, Jr., who were about to start for Chicago as delegates from the Rhode Island Pharmaceutical Association to the meeting of the American Pharmaceutical Association, and World's Congress of Pharmacists, each with a large bouquet of flowers as a token of esteem, and omen of good luck.

Mr. Fenner, although taken by surprise, responded for himself and Mr. Alfreds in his customary pleasant and modest manner.

The members adjourned to the ball field where it was announced that a game of ball would be played (?) between the Bonesets and the Cascarillas for a dozen porous plasters. The Bonesets claimed the game by a score of 9 to 8. The features of the game was the terrific batting of Sperry and Reaves, the base running of Feeley, the fielding of Pierce and Page and the magnificent pitching of Cameron alias Stivetts.

The thanks of the entire team is due and freely given to Mr. Greene for his generous donation of liquid refreshment during the game.

The members returned to the city in the early evening well pleased with their afternoon outing and looking forward to an early repetition of the occasion.

THE RHODE ISLAND MEDICO-LEGAL SOCIETY.

DISCUSSION OF THE BORDEN TRIAL.

THE Rhode Island Medico-Legal Society held a meeting at Field's Point, July 20, 1893. A discussion of the question, "Lessons to be Learned from the Borden Trial," was generally participated in. The society was called to order at 4 o'clock, there being present **Drs. Palmer** of Providence, **Garvin** of Cumberland, **Carpenter** of East Providence, **A. A. Saunders** of Carolina, **Morgan** of Westerly and **Kelliher** of Pawtucket. **Dr. Morgan** was elected President pro tempore.

Dr. Garvin opened the discussion of the question before the society, referring to Medical Examiner Dolan's action in viewing the bodies of Mr. and Mrs. Borden. He did not think the view as complete and perfect as it should have been. The temperature of the bodies was not taken, and as far as the evidence at the trial went, there was nothing to show that he made any personal inquiries in regard to the circumstances attending the murders. Any one of the company, in his capacity as Medical Examiner, was liable to have a case of murder. It might be that the failure of Dr. Dolan to do his full duty had led to the trial of an innocent woman or the escape of the real murderer. The duties of a Medical Examiner should be governed not only by the workings of law, but by the history of the office.

Under the old coroner law the coroner did all and more than is required of the medical examiner of to-day. The inquest was then held immediately. The advantages of such a system were very great. At that time the whole sequence of events was fresh in the minds of the witnesses and was, therefore, more readily remembered. The mind, too, was more alert under the excitement of the occasion, and, on the other hand, if any of the witnesses were criminally connected with the affair, they were given no opportunity to formulate a story to escape detection. In the sub-division of the duties of the coroner much of the power of the office had been taken away. The medical examiner should really do all that the coroner used to

do. Such procedure would be possible under a liberal interpretation of the law. The law allowing the medical examiner to take charge of the body certainly meant more than a literal construction of the words. The room in which the body lay should at least be shut up from others. The autopsy should take place on the spot and a view of the body in the case of a murder should be interpreted to mean a photographic view. Then the medical examiner should investigate into the cause and manner of death. The testimony of every one in reach should be taken. Even a stenographic report of what was said should be secured if possible in cases as im portant as the Borden case. In a case like the one at Fall River every one whom it was deemed improper to allow to be present should be excluded. If the medical examiner fails the failure is often a most serious one.

Dr. Palmer said that it was easier to criticise than to do right one's self. In his experience he had never dealt with a case in which he had not felt afterwards that he might have done better. It was not best to judge Dr. Dolan too harshly. There were lessons, however, to be learned from the case. Under the old system the inquest was held where the body was found lying. A jury was taken from the crowd of bystanders and the case proceeded. The witnesses were right on the spot. They testified in the presence of the corpse. Of course there were faults in the old coroner system, but the errors were of commission rather than of omission.

Inquiry was an important duty of the medical examiner. He should first of all question those present in regard to what they knew of the occurence. When Dr. Dolan reached the Borden premises he should have begun his inquiry forthwith. He should have taken complete possession of the house and should have excluded all persons, including the family. Then with two or three officers, the marshal and deputies, he should have proceeded to make a careful search of everything. He should also have had a photographer and stenographer on the spot. The right of a medical examiner to have a secret inquest is beyond question. He is the judge of his own court and could exclude even the police if he so desired.

Another important lesson to be learned was that it was wise to delay the expressing of a positive opinion of how the wounds found on the body of the murdered person were inflicted. It is impossible to tell an hour after death the size or exact nature of the instrument used, owing to the action of the muscles. Dr. Dolan made positive statements and then was obliged to take them back when he found that they were untenable.

Another lesson was found in the question of the temperature of the two bodies. Temperature is maintained differently in different bodies, and it was of little use in determining the priority of death. The coagulation of the blood was not to be relied on, and the question of digestion was another matter concerning which little which was definite, could be said. There was no necessity of producing a hatchet in the case. Stress should not be laid on the weapon inflicing the wounds. That was of little importance when compared with the question as to who held and wielded the weapon. It was always wise to use photographs. They told a complete story, and there was no real necessity to decapitate the bodies; it was wrong to the living and wrong to the dead. A photograph of the wounds would have answered every purpose.

The other doctors present spoke briefly and the opinion was expressed that Dr. Dolan did the best that could be reasonably expected, considering the nature of the case and its extreme mystery.—*P. J. July 21, 1893.*

"You are a pharmacist, are you?" "I am." "Been in the business a number of years?" "I have." "Registered?" "Yes, sir." "That is your diploma hanging over there?" "It is." "Well, you may give me a pound of borax."

The R. I. Medical Science Monthly,

J. FREDERICK HALLER, A. B., M. D.,

MANAGING EDITOR,

To whom all communications to this Journal of any nature whatsoever, whether Letters, Exchanges, Books or Pamphlets for Review, or anything intended for the Editorial or Business Department should be addressed.

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Books and monographs, native and foreign, on any of the Medical Sciences, will be reviewed without fail, according to their merits and the space at disposal.

Alterations in the proof involving an excessive amount of work, will be charged to authors at the rate of 60 cents an hour.

Contributors desiring Reprints or Extra Copies of the Monthly can obtain them at reasonable rates by application immediately upon the acceptance of the article.

"The local journal should be first and uppermost in every doctor's affections, and should have his good will and generous support.

"Contributions to its pages should be made often and brief; but it should be the bounden duty of every one to at least once a year make his offering in this channel.

"The subscription price of the local journal should never be allowed to run over, for there is never a time when the local journalist is not doing more for his profession than it is doing for him. The large weeklies should occupy the second position."—*Dr. J. C. Culbertson at Milwaukee, June, 1893.*

EDITORIAL.

A NEW SOURCE OF INFECTION.

THE Legislature of Rhode Island, at its last January session, passed the so-called "Free Text-Book" bill, which will go into effect the coming fall, and with it will go into effect a new source of spreading infectious and contagious diseases.

It has often been noticed and remarked, that epidemics of contagious diseases are far more prevalent when the schools are in session, than

during vacations; and now we are to have added to the necessary danger of aggregation that of probably infected text books.

Instances are not wanting where cases of scarlatina, diphtheria, etc., have developed and the source of infection has been directly traced to infected books; there is no doubt but that many of the so-called "spontaneous" cases of the above named diseases, could their origin be traced, would show infection from the same cause.

If one will but look into the matter it will be seen, that books offer one of the best of soils for the deposit of the germs of disease. In the rooms and in the hands of children, sick with contagious and infectious diseases, the germs are as it were hermetically sealed up between the leaves; when these books are returned, they will be handed out to other children, who in using them, will unseal and release the germs, and thus the disease will be introduced into innocent and unsuspecting families.

It has long been a recognized fact that the books were the common carriers of disease; not only of acute, but chronic diseases as well are known to have been communicated by, or rather through them, syphilis and the various forms of contagious skin diseases are known to have been contracted in this way.

It is hard for the average physician to see the practicability, or the necessity for such legislation, in fact it can only be accounted for by them on the grounds of pure politics. This, perhaps, is rather a severe criticism; but the facts in the case, in connection with much other legislation of like nature during the past few years, not only in the State of Rhode Island, but in other States as well, leave us but little ground to doubt its correctness.

It has been argued that as the State requires compulsory attendance at school, which of necessity requires school books, it is an unjust hardship upon the parents of poor children to require them to purchase them; some times at quite an expense. Undoubtly that is so, but at the same time it is a hardship perhaps to require them to furnish clothes, boots, shoes, etc.; if the State is under obligations to furnish the one, it is also its duty to furnish the other.

But it may be said, the parents are not obliged to use the books furnished by the State; if they are able and wish to, they can still buy books for their own children. All of this is true, and in many instances undoubtedly they will; still, many will take advantage of the law, and the poorer classes are those that will do so to the greatest extent, and it is to these classes that sickness will cause the greatest amount of hardship.

If we are to have the law, there should be some provision in it whereby the health officer, or some other person should have authority to destroy all text books found in families where contagious diseases are

known to exist, or to have existed. No attempt should under any circumstances be made to disinfect them, for from their nature this cannot be done with any degree of certainty; they should in all instances be committed to the flames, for in this way, and in this way only, can we secure absolute safety.

SILENCE REIGNS.

WE expected that a man of Dr. Wm. A. Hammond's supposed standing would have something to say about our article in the July number of the Monthly pertaining to his animal extracts; that he would try to clear himself of the charge of being a vender in trade-marked remedies of doubtful utility, and that he is about to drift into that class of practitioners whose deeds the code of the American Medical Association speaks of as . .

. . ordinary practices of empirics, and highly reprehensible in a regular physician.

But no attempts to set himself right have been made, and those journals which publish Dr. Hammond's advertisements, and the publishers who make his books, and publish his articles, have kept very quiet, for very good reasons, easily understood.

The only attempt at white-washing that has come to our notice is a recent circular headed:

THIS IS NOT AN APOLOGY,

and signed by Dr. Wm. A. Hammond.

We quote from it:

"In endeavoring to provide for the purity of the animal extracts, made according to my formulas, by placing the sale of them to the profession in responsible hands and in superintending their manufacture I have done nothing unprofessional. I have fully disclosed the methods of preparing these extracts, and Messrs. Parke, Davis & Co., know perfectly well that they or any one else can manufacture them with impunity, and may even announce them to the profession as being made by my formula, *provided* they are so made."

If that is so, why is Dr. Hammond so anxious that the product made by the Columbia Chemical Co. should be preferred, and why should he speak of the extracts made by Parke, Davis & Co. as "bogus products?" We think that a majority of the profession are more willing to accept the product made by Messrs. Parke, Davis & Co., a reputable and well known house, as against the *Columbia Chemical Co's.* product, which is said to be trade-marked. The question naturally arises: Why are the products trade-marked Dr. Hammond, if "anyone can manufacture them with impunity?" The answer to this question comes later, as follows:

"It is certainly not to be expected that I should gratuitously provide the public with animal extracts any more than that I should give them my books. Would it be

just and right that Dr. Marion Sims, Dr. Weir Mitchell and others who have advanced therapeutics, should refrain from establishing hospitals in which their peculiar methods of treatment can be carried out under their own supervison?"

No one has ever for a moment expected Dr. Hammond to provide us with animal extracts gratuitously—that would be bad business principles; but when he compares his animal extract business with the labors of Drs. Marion Sims and Weir Mitchell and classes them and their labors on a par with his little business venture, we cannot refrain from feeling highly amused. We never heard of an instance where these men had any products of their eminent and useful labors protected by patents, or accepted the presidency of chemical companies holding such exclusive rights. To establish hospitals in which the public are treated gratuitously, if they cannot pay, is a noble thing, and to experiment with new modes of treatment at such hospitals is perfectly justifiable, if done in the regular way, and under the supervision of regular physicians, and is an entirely different thing from doing business in animal extracts. If physicians of standing like Dr. Weir Mitchell, Dr. Pepper, Dr. Osler, Dr. A. Jacobi or others should test these extracts therapeutically, and give their unbiased opinion in the regular way, we should be inclined to believe them to be of some value, but until such reliable reports of their utility have reached us, we are inclined to take the word of Messrs. Parke, Davis & Co., when they say:

"The consensus of medical opinon seems to be that "Cerebrine" (Hammond) and also " Cerebrin" (as manufactured by us) are therapeutically valueless, and we were on the point of withdrawing the product from the market."

New York, May, 1893.

If any one should still doubt that Dr. Hammond has actually gone into the nostrum vender business this will remove all such doubt:

Dear Sirs:—By authority from Dr. Wm. A. Hammond, we are absolute owners, controllers, and sales agents of the animal extracts prepared under his personal authority and supervison. These extracts will be labelled in the following manner:

CEREBRINE—Hammond.

CARDINE—Hammond. MEDULLINE—Hammond.
TESTINE— " OVARINE— "

"Columbia Chemical Company." [Countersigned.]

In closing the circular above referred to Dr. Hammond says:

"I have no disposition to deal hardly with Messrs. Parke, Davis & Co. They have, it is true, been guilty of a mean crime, but I have been actuated more by a desire to reform than to punish them."

A ludicrous spectacle indeed to see Dr. Hammond pose as a reformer. But a few points can be elicited from this business venture of Dr. Hammond:

That he seems to be president of the Columbia Chemical Co., or directly connected with it, a concern holding trade-marked rights to manufacture and sell his animal extracts; and if Dr. Hammond is pre-

sident or member of this Company he is a vender in trade-marked remedies; that the value of these remedies has not yet been proven by actual clinical experiments by medical men of standing, except Dr. Hammond, and his word must be taken with a good portion of doubt, as being financially interested and being besides a "ranting enthusiast" on the subject;

That these extracts have slumbered silently for many decenniums among the many discarded remedies in physicians' armamentaria, and have never attracted much attention from the profession until Dr. Hammond revived them in his own, peculiar way;

That all this noise about animal extracts is useless except for one thing: to settle forever their fate; for, so far, they have proven to be inert, and devoid of those wonderful healing properties which seem to have been found only in Dr. Hammond's practice. By the way, did any other physician have access to those cases upon which Dr. Hammond has experimented with the extracts, and from which he has gathered his statistics?

If Dr. Hammond would place some of his extracts at the disposal of reputable hospitals and there have them *tested properly* before *disinterested* medical men, and relinquish his connections, whatever they may be, with the concern that holds trade-marked rights to them, and let every respectable concern, Messrs. Parke, Davis & Co. and others, try their best to make them as good as possible, Dr. Hammond would regain his standing before the profession.

But when he calls Dr. Hare, of Philadelphia, a liar, and charges Messrs. Parke, Davis & Co. with making "bogus" remedies, and tries to "do up" Dr. Leonhardt and others, we fear he has "bit off more than he can chew," and his further business ventures will be watched by us very closely.

OUR CORNER.

Medicine and Art.—It seems worthy of comment that among the thousands of pictures at the Columbian Exposition, illustrative of the art and customs and types of every country and calling of the world, there are not half a dozen pertaining to medicine. The query arises: is this because of any inherent qualities of medical ideals and practices that do not lend themselves to æsthetic treatment? Every aspect of life, death, suffering and wrong that the world has known, is portrayed by the painter or sculptor, all save the one aspect of illness and the medical saving of life. The heroism of the men who kill is found pleasing, but not the heroism of those who bring life out of death. Perhaps this illogically rests upon the larger one of the contemptuous and contemptible opinion of medicine in the minds of the world. Inexplicably, unconsciously, but so inevitably, the worldling rates the great physician immeasurably below the great general, statesman, or lawyer, and with the large majority there even arises a tinge or a downright dyeing of disrespect, when medicine comes into thought. As to the pictures, the impracticability of the

art treatment of medical subjects is again sadly illustrated by the examples at Chicago. Seligman's "Billroth's Clinic" is well known to many though a cheap reproduction. Lessing's "The Sick Bed," and Jimenez's "Salle d'hospital," are hardly worth passing notice, and the theatrical clap-trap of Heyl's "Before the Section" (*sic*) is wholly execrable. All are simply prosaic recitals, none being touched with the divine fire of art. Are such things necessities or misfortunes—errors of the artist or inherent in the subject?—*Medical Review.*

The Duke of Veragua and Heredity.—No doubt there is something in heredity; but there is too much made of it. The son of Columbus was one-half his blood; his grandson, $\frac{1}{4}$; his great grandson, $\frac{1}{8}$; the fourth generation, $\frac{1}{16}$; the fifth, $\frac{1}{32}$; the sixth, $\frac{1}{64}$; the seventh, $\frac{1}{128}$; the eighth, $\frac{1}{256}$; the ninth, $\frac{1}{512}$; the tenth, $\frac{1}{1024}$; *and the Duke of Veragua* is $\frac{1}{2048}$ Columbus!

The estimate of character on heredity is immeasurably more uncertain in men than in horses, the latter having no independent, self-regulating, and improving or deteriorating power. The remaining $\frac{2047}{2048}$ of the duke is a melange defying analysis.

If it be said that heredity is not governed by a mathematical law, and that the duke may have *more* of Columbus's blood than this calculation indicates—true; or *less.*

From this point of view the newspapers that have been publishing cuts of the duke, and affirming that he resembles the pictures of Columbus, are in a ludicrous attitude; especially as there is a large number of portraits, etc., extant, among which critics find little resemblance.

One can, nevertheless, hardly restrain a feeling of pity for the duke, whose entrance and career here were majestic, but whose heart must have been sad beneath the pageant, and whose exit was that of one "so weary with disaster, tugged with fortune."—*The Christian Advocate.*

The Esteem of One's Fellows.—In the course of the Croonian Lecture (*Med. Rec.*) delivered recently by Virchow, he says: "Who of us is not in need of friendly encouragement in the changing events of life? True happiness is not based on the appreciation of others, but on the consciousness of one's own honest labor. How otherwise should we hold our ground in the midst of the turmoil of the day? How should we preserve the hope of progress and of final victory against the attacks of opponents and the insults which are spared to no one who comes before the public? He who during a long and busy life is exposed to public opinion certainly learns to bear unjust criticism with equanimity; but this comes only through the confidence that our cause is the best, and that some day it must triumph. Such is our hope in our wrestlings for progress in science and art; such is our hope in our struggles for civil and religious liberty, and in this hope we gradually become hardened against malicious attack. It is a kind of immunization which, I acknowledge, has also great drawbacks, for this hardening toward unjust attacks leads very easily to a similar indifference towards just attacks, and, owing to the tendency to contradiction rooted in the nature of human thought, it finally leads also to indifference to praise and recognition. One withdraws again and again into one's self, discontented with the world and with one's self also; but who can so completely retire within himself that the consciousness of the insufficiency of human thought and that the criticisms of opponents are justified, cannot break through the crust of even the most hardened self-consciousness? Happy is he who has courage enough to keep up or regain his connections with other men, and to take part in the common work. Thrice happy he who does not lack in this work the flattering commendation of esteemed colleagues."

A cable dispatch from Rome, Aug. 2d, reports that the International Medical Congress has been postponed until April next by reason of the prevelence of cholera.

AMONG OUR EXCHANGES.

Texas Medical Journal.—Dr. S. E. Hudson, has become associated with Dr. F. E. Daniel, in the proprietorship of this journal. The name has been changed from *Daniels' Texas Journal* to the *Texas Medical Journal.*

Delegates to the Pan-American Medical Congress.—Gov. Brown, of Rhode Island, has appointed Drs. A. B. Briggs, P. S. Redfield and Chas. H. Fisher, of the State Board of Health, as delegates to the Pan-American Medical Congress.

North American Practitioner.—Dr. John H. Hollister has taken the editorial chair of the *North American Practitioner.*

PERSONAL MENTION.

We invite professional men to notify us of anything they would like to have mentioned under this head.

The Honorable James Cecil Phillippo, M. D., President of the Legislature of Jamaica, Vice-President of the Pan-American Congress for Jamaica, author of various works upon the climate, etc. of the West Indies, has been visiting Providence for a few weeks and has had his lost health attended to by Drs. Hasbrouck and Hutchinson. He is at present attending the Pan-American Medical Congress. The doctor will spend a few more weeks in Providence.

Dr. Helen C. Putnam has removed her office from Snow St. to No. 24 Greene St.

We insert in this number among our associate editors the name of Dr. E. B. Gleason, the well known Nose, Throat and Ear Specialist of Philadelphia. Among Dr. Gleason's many writings are: "Subjective Alteration of the Pitch of Sounds in the partially deaf;" "Exostoses of the Nasal Septum and their treatment by Operative Procedures." We welcome so able a contributor to our pages and before the new-year, we hope to add more such men to our editorial staff.

FUN, FORTUNE AND FORMULÆ.

Local Anæsthesia may be readily produced in about a minute by a spray of menthol, p. j; chloroform, p. xv; and will last from two to six minutes.

Write George C. Frye, Portland, Maine, for a free sample of Pancreo-Bismuth with Pepsine. It is a most effective carminative.

The wife of Koch, the bacteriologist, has secured a divorce, with alimony to the extent of one-fourth his income. He is to marry a young actress, now playing at Barany's theater.

Science! Where are you at?

When you are in want of pure liquors or wines, for medicinal purposes, call upon, or write Jacob Wirth & Co., for prices.

Graduates in France.—During the past year there were six hundred and thirty-

five graduates of medicine in France, as against over four thousand in the United States.

Doctor, if you want your remedies fresh, accurate and at the lowest price, write the P. J. Noyes Mfg. Co., Lancaster, N. H., for price list.

Those 5 grain tablets of Antikol have proved a great success in the treatment of fevers, headache, and rheumatic pains.

Look at the new fall hats in Harson's.

Have you used Henry's Tri-Iodides, in rheumatic gout? If not, do so; it is the ideal alterative.

S. A. Sylvester, M. D., manufactures the best surgical elastic goods; we have used them for the past fifteen years, always with satisfaction. When in want of anything in his line, give him a trial order.

A Specific for Vomiting in Pregnancy.—

℞ Chloroform, ... ℥ss;
Dioviburnia, ... ℥ij.—M.

Sig. Dessertspoonful in *hot* water every hour or two.

For Alcoholism.—

℞ Neurosine, ... ℥viij.

Sig. Teaspoonful four or five times daily.

In morphine poisoning Dr. Daily streaches the sphincter and with the bivalve speculum as often as respiration flags, and regards it as a plan well worth following.

TO LET—A VERY DESIRABLE LOCATION FOR A PHYSICIAN.

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Graduate of the Gothenburg Gymnasia Sweden.

Masseuse

Captain P. Ekman, Instructor.

22 Lloyd St., Providence, R. I.

Reference by Permission:—J. W. Mitchell, M. D., George W. Carr, M. D., J. Frederick Haller, M. D.

The R. I. Medical Science Monthly.

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Original and Selected Articles.

REQUIREMENTS FOR MEDICAL PRACTITIONERS.

NORTH AMERICA.

United States.—The law varies in the different States and Territories.

Rhode Island has no regulations whatever!

(*a*) No regulations or inoperative.

Connecticut	Kansas	Ohio
District of Columbia	Maine	Rhode Island
Indian Territory:	Massachusetts	Utah
Creek Nation		

(*b*) Diploma to be registered with State or county officials.

Arizona	Idaho	Nebraska
Arkansas	Indiana	Nevada
Delaware	Michigan	Wyoming
Georgia		

(*c*) Diploma to be endorsed by a college "in good standing," or by the State Medical Society, or by the State or Territorial Board of Examiners; or by the State Board of Health.

* California	Louisiana	Pennsylvania
* Colorado	Maryland	* South Dakota
* Illinois	* Missouri	* Tennessee
* Indian Territory:	* Montana	* Texas
Choctaw Nation	New Hampshire	Vermont
Iowa	* New Mexico*	West Virginia
Kentucky	* Oregon	Wisconsin

* Signifies that the applicant may be submitted to examination by the State or District Board of Medical Examiners.

(*d*) Candidate is examined by State, Territorial, County, or District Board of Medical Examiners, or Board of Censors.

Alabama	Mississippi	North Dakota
Florida	New Jersey	South Carolina
Indian Territory:	New York	Virginia
Cherokee Nation	North Carolina	Washington
Minnesota		

Mexico.—No special requirements.

SOUTH AMERICA.

Argentine Republic.—The applicant's diplomas must be verified by the Argentine Consul in this country (fee $6.00). This should be done before leaving this

country. On arriving at Buenos Ayres, the endorsement of the Argentine Consul in this country must be verified by the Argentine Foreign Office. Three examinations must be passed in the University of Buenos Ayres or Cordova:—First examination: Anatomy with Dissections, Physiology, Pathology, Ophthalmology, and Gynæcology. Second examination: Clinical and Operative Surgery, Histology, Materia Medica, and Mental Diseases. Third examination: Clinical Medicine, Pathology, Midwifery, and Toxicology. The fee for examination is 300 dollars, half of which is retained in case of rejection. The examinations can be passed consecutively at a few short intervals or separately; a rejected candidate is not readmitted to examination until after the lapse of six months. The examination is conducted *vivâ voce* in Spanish. Temporary authorisations to practice for six months may be obtained from the governor of a province, and the applicant may utilise this time to improve his knowledge of Spanish. The regulations for graduates of Spanish Universities are less onerous.

Brazil.—A State examination must be passed which is conducted in Portuguese or French.

Chili.—The regulations resemble those in the Argentine Republic; examination by the University of Santiago.

Peru.—An examination must be passed before the University of Lima. It is conducted in Spanish.

Uruguay.—The conditions are similar to those in the Argentine Republic; examination by the University of Monte Video.

BRITISH COLONIES AND DEPENDENCIES.

Foreign practitioners can practice medicine in Great Britain without restriction, but unless registered cannot recover their fees by legal process nor give medical evidence in courts of law, nor hold public medical offices. Under the Medical Act of 1886, the General Medical Council may recognise equivalent qualifications granted in countries which treat Great Britain with reciprocity; after certain formalities such qualifications would be registrable. At present, however, no foreign countries have arranged to treat England with reciprocity, and as a rule British practitioners are required in European countries to pass an examination of more or less severity.

Australasia.

Australia.—The applicant must be registered by the Medical Board of the colony in which he proposes to practice. He may be required to prove the genuineness and authenticity of his diplomas.

New Zealand.—Certain legal formalities must be gone through, but there is no examination.

Tasmania.—A diploma must be verified by the Medical Examining Board.

Dominion of Canada.

Except in British Columbia and Ontario it is necessary only to register British diplomas, but evidence of authenticity and genuineness may be required. For this registration a fee is charged, and in some cases there is also an annual tax. In British Columbia the Medical Council of the colony holds an examination, and there is a fee of 100 dollars; in Ontario an examination is held by the College of Physicians and Surgeons of Toronto.

South Africa.

There is a Colonial Medical Council both in the Cape of Good Hope and Natal. British diplomas are registrable after inspection and verification.

West Indies.

British qualifications are everywhere recognized. In some instances they must be registered, for which a small fee is charged.

EUROPE.

Austria.—It is necessary to pass the State examination, or obtain a University Degree in Medicine, and to become an Austrian subject. Exemptions may be granted under very special circumstances.

Belgium.—Upon the advice of a jury which has a right to grant the diploma of Doctor, the Government can give permission to practice medicine to a foreign subject who possesses a diploma in Medicine, Surgery and Midwifery.

Denmark.—Foreigners are required to pass the State examination.

France.—Under the new law a degree of M. D. obtained by examination befor a French faculty will be indispensable.

Holland.—Foreigners are required to pass the State examination.

Germany.—Any person may practice medicine, but if he has not passed the State examination he does so at his own peril, and is liable to fine and imprisonment if convicted of a mistake.

Greece.—A State examination must be passed, but graduates of foreign schools may take their examination in French or English.

Italy.—A foreigner must (*a*) obtain an authorisation (*abilitazione*) from one of the Royal Universities of Italy; or (*b*) if he desire to practice only among foreigners he is at liberty to do so.

Portugal.—The State examination must be passed.

Roumania.—A State examination must be passed (*vivâ voce*).

Russia.—The State examination must be passed; but if the applicant possesses the degree of M. D. from a university of high repute, the Minister of Education may give an authorisation after requiring the candidate to compose and defend a dissertation.

Norway.—The State examination must be passed.

Spain.—The State examination must be passed, but exemptions are sometimes granted on application through the American Minister.

Sweden.—The State examination must be passed.

Switzerland.—Foreign practitioners are not allowed to practice even among their own countrymen, unless they have passed the State Examination conducted in French or German at one of the Universities—Bâle, Berne, Geneva, or Zurich.

Turkey.—An examination must be passed (fee $22.50) at Constantinople.

—*Compiled from the British Medical Journal, No. 1705.*

Are you with us? It will be the aim of Monthly to be a scientific and practical medical journal and to that end we solicit the coöperation of every physician in the land. The more original articles we receive from our confrerés the less you will hear from the editors, and the more subscriptions we receive, the better will be the Monthly.

They had asked Dr. Sandblast, the eminent surgeon, to carve the festal fowl, and he stood over it with the carving knife held in the first position. "The incision, you will observe, gentlemen," he began dreamily, "commences a little to the left of the median line, and—oh, excuse me Mrs. Parmalee, I thought I was in the—may I help you to a little of the femur?—*Puck.*

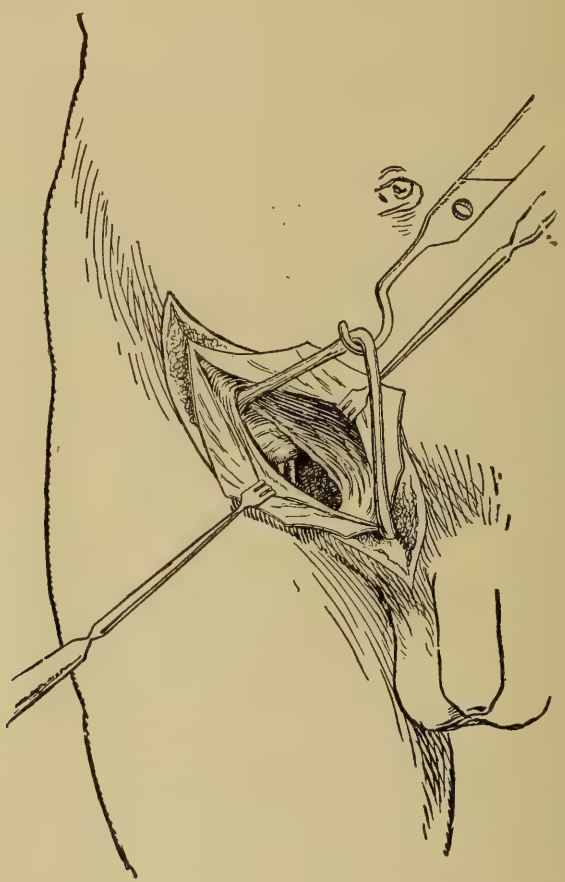
A REVIEW OF THE OPERATIVE TREATMENT FOR THE RADICAL CURE OF INGUINAL HERNIA.

BY SAMUEL E. MILLIKEN, M. D., LECTURER ON SURGERY AT THE NEW YORK POLYCLINIC.

READ BEFORE THE "PAN-AMERICAN MEDICAL CONGRESS" IN WASHINGTON, D. C., SEPTEMBER 6, 1893.

HAVING only recently given my views on the subject of the "Radical Cure for Inguinal Hernia," I wish only to discuss briefly the comparative merits of three methods,—viz. that of Bassini, of Kocher, and of Halsted.

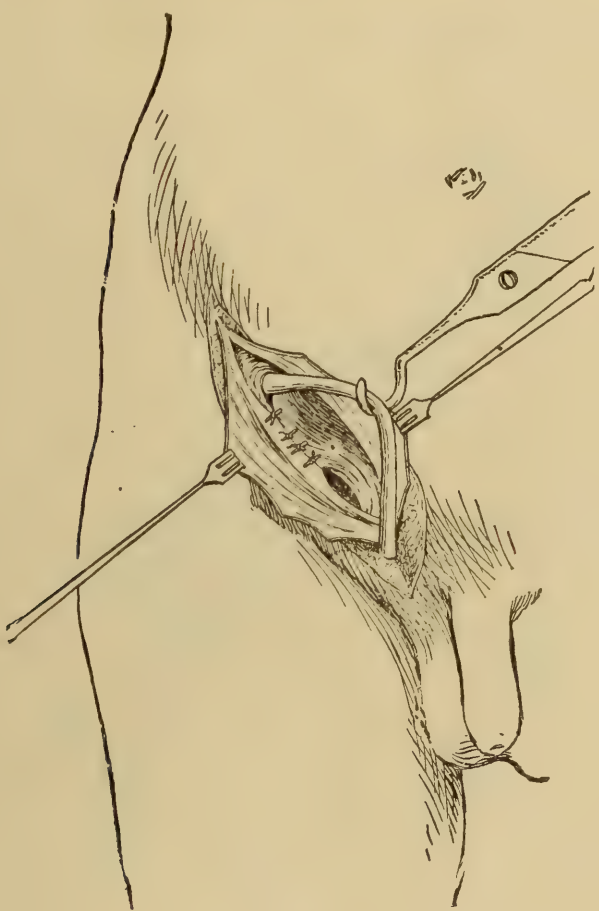
After having looked up more than one hundred cases of recurrent hernia after various methods, which came under my observation at the



"Hospital for Ruptured and Crippled," I am convinced that the percentage is far greater than the operators are led to suppose by the immediate apparent good results. Hospital cases are very difficult to follow, particularly in the large cities, because the poorer classes change their addresses so often, without leaving behind them any tidings as to their whereabouts.

It is my opinion that we expect too much for the radical operation anyway, owing to the fact, that with all of Nature's devices, she has failed to let the structures of the spermiatic cord make their exit from the abdominal cavity, without leaving each subject liable to hernia,—no age being exempt. Our laparotomists will, I think, agree that any abdominal section is likely to be followed by hernia, whatever percautions are taken in closing the wound, and from our herniotomies, when the testicle is not sacrificed, I don't see how we can but expect a larger percentage of recurrences, than they get of the neutral variety.

So long as it is not deemed advisable to sacrifice the testicle, the

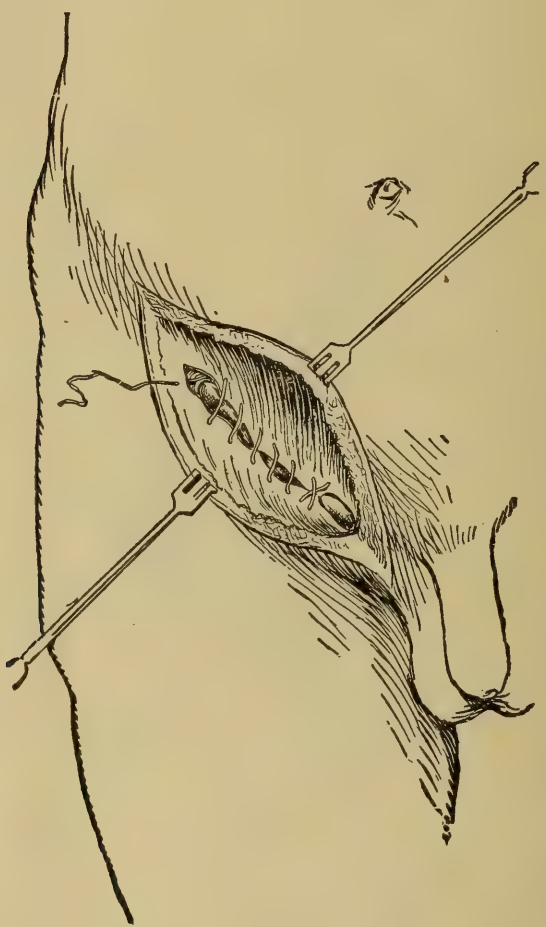


best that we can hope for, is to imitate Nature, and re-establish the obliquity of the canal. That is best done in my opinion, by the method of Bassini and I will endeavor to show its advantages over the other two methods mentioned above.

First, the aponeurosis of the external oblique muscle is divided over the cord structures, until the internal ring is well exposed; the flaps are separated from their underlying structures, until the conjoined tendon on the upper, and the shelving process of Poupart's ligament on the lower, are brought into view. The cord structures and the hernial sac

are next lifted out of their bed en masse, after which the sac is isolated, opened, and tied off at the highest point.

Secondly, with the cord held out of the operation field by a blunt hook or the finger of an assistant, the conjoined tendon on the upper is sutured to the shelving process of Poupart's on the lower, by means of the kangaroo tendon, or of chromatized cat gut; but I prefer the former as the time for absorption is longer, and the sutures are stronger in proportion to their size. From four to six interrupted sutures will be sufficient to make a firm prosterior wall for the cord structures, care being taken not to constrict them at the internal ring.



Thirdly, the obliquity is re-established by bringing together the flaps of the external oblique by a continuous suture of the same material. The skin wound is closed with interrupted cat gut, without drainage.

Kocher's method simply deals with the sac, which is dissected out as thoroughly as possible without slitting up the canal, and pulled through a small opening which he makes in the aponeurosis of the external

oblique opposite the internal. He afterwards sutures it to the aponeurosis over the canal, but in so doing, only strengthens the outer wall.

Halsted's method is simply the transplantation of the cord without any particular endeavor to rebuild the canal. After dividing the external oblique, he lifts out the cord structures, and ties off the sac; then sutures the respective tendons together posterior to them, allowing them to come out directly instead of obliquely. I have never met with any recurrences from this operation, possibly owing to its being rarely employed in New York. I am confident that sooner or later a hernia will develop at the point of exit of the cord structures. Another decided objection to this procedure is the liability to adhesions with the overlying fascia, which will not occur when they pass between the serous covered tendons.

Of something over thirty cases operated upon by one after the method of Bassini, I have had three recurrences. In each, suppuration occured, and the hernia made its appearance during the first six months.

CONCLUSION.

(1) Reconstruction is the best method.
(2) No drainage should be employed.
(3) The use of trusses should be prohibited afterwards.
(4) While a certain percentage will recur, the operation is justifiable between four and forty years of age, unless some physical disability contra indicates the same.
(5) Where omental or intestinal adhesions exist, and the use of a truss is unsatisfactory, the operation should always be attempted, as the danger from strangulation is greater than that from the employment of an anæsthetic.
(6) It is advisable to attempt a radical cure in all cases operated on for strangulation, unless the gut be gangrenous, or the patient's vitality too low.
(7) Where undecended testes exists, it will usually be found to be complicated by hernia; and at the time the organ is anchored to the scrotum, the inguinal canal should be reconstructed.

36 West 59th St., New York.

A Valiant Defender.—Mr. Grogan—"Pfwat's the matter wid the boy, doctor?

Dr. Bowles—"Nothing serious, just now; though I think he is threatened with diphtheria, possibly."

Mr. Grogan—"Show me the man that t'reatened 'im an' I'll brek um in two.'—*Indianapolis Journal.*

MEDICO-LEGAL ASPECTS OF PATHOLOGICAL SEXUALITY.

BY WM. H. PALMER, M. D.,

MEDICAL EXAMINER AND POLICE SURGEON, ETC., TO THE CITY OF PROVIDENCE.

"Diseases are not morbid entities, but more or less definite deviations from healthy life." (Maudsly's Path. of Mind, p. 144.)

ONE of the notable facts which modern science is revealing to the world, is the fact of identity in kind, of all human traits. Differences in character and conduct are not due so much to differences in the nature of motives and desires, as to the healthy or diseased conditions under which these motives and desires operate—that is, to their normal or abnormal development.

From apparently similar creations there arise, under the different conditions supplied by inheritance, education and environment, different individuals—those whose qualities and conduct adapt them to social life, and those whose abnormal development renders them a menace and detriment to their fellows.

One of the abnormalities conspicuously allied in kind, to a healthy appetite, is abnormal or pathological sexuality. The procreative impulse, in its healthy development, serves nature's highest end in the reproduction of the species. It also forms the foundation for the social feeling, first: by attraction to, and interest in, a person of the opposite sex; next, through love of, and care for, offspring; and eventually, leads through these evolved emotions to that sympathetic feeling for all mankind, which is called the altruistic. The sexual feeling may therefore be regarded as the basis of social existence; also the highest incentive to the exertion of strength, and to the foundations of a home. "If man were to be robbed of the instinct of procreation and all that arises from it mentally, nearly all the poetry and perhaps the entire moral sense as well, would be torn from his life." (Maudsly, *op. cit.*)

The sexual feeling being the strongest in man's nature, will impress his whole character. When the sexual appetite is healthy and normal, the man will be healthy and normal. But when this instinct which by nature is the source of love, of æsthetic pleasure and of manly power, becomes an abnormal, an unhealthy appetite—a perverse sexuality, it leads to the commission of such monstrous crimes against nature and man, that one is forced to inquire for their causation in a pathological sexuality, rather than in the impulses of vice and moral degradation.

Pathological sexuality is indicated and expressed in: 1, the diseases which result from excessive or perverse sexual indulgence, the most

frequent being a general paralysis; 2, in the degenerations which attend unnatural or contrary sexual indulgences, as onanism, pederasty, sodomy, masochism, sadism, and saphism; and, 3, in the increasingly frequent crimes of contrary sexual assault upon children, and in rape culminating so often in bodily violence and sometimes in murder.

The causes of abnormal sexual impulses are many, physical, social, and psychical. The malformations, defects, and atrophies of the sexual organs play no unimportant part. (Arthur MacDonald, "Abnormal Man.") The spinal neuroses and the neuropathic diathesis are often controling centers. Onanism and sexual excesses are important ætiological factors. "Hereditary predisposition is less often met with than in the other forms of mental disease; and there is no little uncertainty as to what is the most frequent exciting cause. Sexual excesses, I hold confidently, to have that evil preeminence . . . the steady sexual excesses which have gone before the symptoms of illness, and have by degrees, sapped the vitality of the nervous system, and left a singular deadness of the moral sentiments, and the coldest inertness of will." (Maudsly, *op. cit.* p. 453.)

The degree of physical and mental degeneration resulting from onanism, differs considerably with the temperament—the neurotic temperament being a powerful predisposing cause. What is commonly to be apprehended from solitary sexual vice, is hypochondria, indolence and apathy, intense selfishness and self-conceit.

Some of the social and educational causes of the increasing sexual perversions, are found in the absence of a normal sentiment concerning sex relations. This sentiment should be cultivated by a sound, well-directed knowledge of physiology among the young; by greater frankness between parents and children, and with less sham modesty too often the concomitant of real licentiousness, in the relations of young men and women. Positive causes of sexual perversion are to be found socially, in a wide spread sentiment concerning the sexual act—a sentiment prevalent among all classes which encourages the working of the capacity for sexual pleasure for all it is worth, and, incidentally, of tacitly condoning crimes against sex, and accepting the necessity of a prostitute class. This sentiment, fed by obscene books, prints, and shows destroying the normal sense of chastity and weakening the power of self control, is in turn both the cause and effect of degenerate bodily and mental conditions, and is among the most pernicious of adverse influences with which society has to contend.

In determining responsibility for sexual crimes, there must be a clear differentiation between the perverse sexual act and the perversion of the sexual instinct, for the perverse sexual act does not necessarily imply a perversion of the sexual instinct since many sexual crimes have

undoubtedly been committed by persons of sound mind. *And the perversion of the sexual instinct must be pathological to predicate irresponsibility.*

Psychiatry in its advancing inquiry into the causes of sexual crimes, has found very many to rest on a psycho-pathological basis. These conclusions have been reached through the study of the development of the perverse sexuality in the abnormality in thought, feeling and will, due either to a deficient congenital mentality, to the arrest of mental development, or to a psychical degeneration the result of pre-existing neuropasis.

Upon such physical and psychical diagnosis, the question of responsibility for sexual crimes is to be differentiated, whether the perverse sexual crime is the act of a depraved, vicious person, or the act of a diseased mind.

The responsibility of disposing for the protection of society, of the monsters of perverse sexuality, the exhibitionists, the pederasts, the sodomists, and of all persons of contrary sexual instinct, which criminal statistics show are alarmingly increasing, rests with the law in its recognition of the fact attested by all civilization that the preservation of chastity and morals is necessary for the life and growth of a state and nation.

But jurisprudence is eminently conservative. It clings to its judicial traditions although of late, there has been a hopeful departure therefrom especially in the field of sexual crimes—a hidden field that has been opened to medical science through its investigations in psychopathology. To this field of judicial inquiry perhaps more than in any other, medical science through expert testimony is being summoned, and properly too, for only in this way can the claims of the individual to justice, and of the community to protection, be maintained. "In no domain of criminal law," says an eminent writer and medical expert in psychical diseases, "is co-operation of judge and medical expert so much to be desired as in that of sexual delinquencies . . . The nature of the act can never in itself, determine a decision as to whether it lies within the limits of mental pathology or within the bounds of mental physiology . . . For various reasons the practical jurist will in all cases of sexual crimes, call medical experts to make a psychiatric examination." (*Krafft-Ebing, Psychopathia Sexualis*, p. 379, *et seq*).

The law must of necessity deal severely with sexual offenders. The sexual monster who has outraged decency and defiled or irreparably injured another, requires firm and effective treatment at the hands of the law. But this sexual monster is also a man entitled to a medical diagnosis and expert opinion relative to his physical degeneration or psychical disease. So long however, as the medical verdict is against

the safety of his conduct if he be released to mingle with society, he should be legally restrained either in penal and reformatory institutions, or in asylums for the care of the insane, as the medico-legal judgment in each case of sexual crime, shall differentiate the pathological from the purely vicious.

PHARMACY.

ASSAYED PREPARATIONS.

C. H. DAGGETT, Ph. G.

THE average physician and pharmacist of the present day, do not seem to fully comprehend the importance of manufacturing and using assayed preparations or preparations of a known strength. The physician in administering to the sick, to be successful, must know what the strength is of the medicine he prescribes, in order to get the action he desires, but this is very difficult owing to the great variation in strength of the different important preparations as made by different persons. For instance: a physician writes a prescription containing tincture of opium. When he writes it he knows that if properly made it represents 10% of powdered opium and contains about 6 grains of morphine to each fluid ounce, and arranges his dose accordingly; it is carried to the pharmacist and compounder; given to the patient, it gives the necessary relief. For some reason or other the prescription or a copy is asked for and taken to another store and compounded. The tincture of opium in this store may not contain but 3 or 4 grains of morphine to each fluid ounce and in this case the drug would not do its work and the pharmacist is either said to have made a mistake or the physician is blamed. It is a good plan to assay the crude product before making the preparation but it is necessary to assay it after completion, owing to a liability of imperfect percolation. Unless there is some standard adopted by the pharmacists and a law made to enforce making preparations to that standard, the physician is never safe in figuring on the dose of his prescription unless he sends it to a pharmacist who is known to standardize his prescriptions. The schemes for assaying may be found in *Lyon's Pharmaceutical Assaying* and they are not difficult to manipulate after a little experience. I am assaying preparations more or less all of the time and find that since this has been done much better results are obtained.

SOCIETY REPORTS.

RHODE ISLAND MEDICAL SOCIETY.

QUARTERLY MEETING, HELD IN TILLINGHAST PARLORS, PROVIDENCE, R. I., THURSDAY, SEPTEMBER 7, 1893.

THE meeting was called to order at 11 o'clock, with a large number of the members present, by the President, **Dr. Robert F. Noyes.**

The Secretary, **Dr. Wm. R. White,** read the report of the last meeting of the Society and it was incorporated as part of the Records of the R. I. Medical Society.

The President announced that three of the Fellows of the Society had passed away since the last meeting. **Dr. Charles Fillmore,** a member for thirty-six years; **Dr. Adoniram Judson Greeley,** a member for twenty-eight years; **Prof. Charles W. Parsons,** a member for forty-seven years. The President paid a most eloquent tribute to the lives, labors and characters of the deceased.

Dr. Horace N. Williams reported a case of anthrax, exhibiting the patient to the Fellows.

History.—"A. S., age 23, was bitten by a horse some weeks ago, on finger of right hand. An abscess formed a little distance from the spot which I opened. Nothing peculiar was noted about the abscess, nor was their any lymphatic disturbance. This was followed by a succession of carbuncles, all upon the right side, seventeen in number; for these he received no treatment. Making a trip to Maine in the meanwhile, six or seven days ago, he noticed what he thought to be another carbuncle coming upon the back.

Upon examination we find that there is a necrotic spot, six inches in length, by four and one-half in width, surrounded by the usual browny area, covering the lower part of the back.

Temperature 103°; pulse small and rapid; tongue brown and dry, lips showing the same condition, countenance anxious, nervous system most markedly wrecked.

Treatment, Aug. 3d.—Seven hypodermic injections of carbolic acid, 95 per cent. were given in the healthy or living area, one-half inch outside the necrotic tract; ninety minims in all were injected at this time. He was also given calsium sulphide T. T., $\frac{1}{10}$ gr. hourly, with claret wine and morphia; 1-60 carbolic pack was kept moist and constantly applied.

Temperature 102° in the morning; patient slept but little, took about gr. iii of morphia through the night. The circumference of the anthrax being so immense, I injected at five points not acted upon by the injection of the previous day, using sixty-five minims in all; in two of these only did I puncture the living skin; the other three I injected on the border of the sloughing area; morphine kept up in large doses.

August 7th.—Temperature running from 99½ to 100 degrees; the surrounding skin has lost much of its browny hardness and a black slough fills the center, making a well defined line, except at three points. At these I injected, through the necrosed part, 25 m carbolic acid into each. Patient is now taking calsium sulphide, gr. one-quarter, six times daily; tinct. of chloride of iron, beef and wine, and as much nourishment as possible.

August 28th.—Patient is able to resume his work. All the sloughs are separated. Says he lost 42½ pounds, but is beginning to gain. There is still a large ulcer, not yet

closed in. No more carbuncles have appeared. Patient is eating hearty and will soon be entirely well.

It seemed, in this case, to give as good results to inject through the soft necrotic tissue on the border, as when I punctured the healthy skin, and was much more agreeable to the patient. In both cases the acid returns slowly through the diseased mass. I have arrested carbuncles by injection through the centre, never touching the sound parts. The most important thing is to be sure that the injection is given deep enough to reach the bottom of the diseased parts. In presenting this case and the line of treatment employed, I feel that my report would be incomplete without alluding to the history of carbolic acid injections in similar cases. Some time ago I read in a German medical journal, the name of which I have forgotten, a report of cases of carbuncles treated by carbolic acid injections through their circumference. But as far as I know, it was *Dr. Charles O'Leary* who first treated an anthrax in this way successfully. I wish to acknowledge his courtesies in advising me in the treatment of this case, which I am sure would not have yielded to dissection or the cautery.

The discussion of Dr. Charles O'Leary's paper on "*Colles' Fracture*" (continued from the March meeting) was opened by remarks from Dr. G. F. Keene, who spoke as follows:

"My attention was first called to this fracture some years ago while yet an interne at the Boston city hospital, in consequence of a suit at that time threatening one of our oldest surgeons by a neurotic patient, whose fracture had resulted in impaired function of the fingers. And at about that time we were using and discussing in the hospital a splint invented by Dr. Bolles, of Boston. Again it has fallen to my lot to amputate a hand and a portion of the forearm for suppurative arthritis, resulting from an untreated Colles' fracture involving the articular surface of the radius. Lastly, it was my fortune to present a paper on this subject, before this society, in 1885. Dr. O'Leary has told you about the celebrated Irish surgeon, who was the first to analyze this fracture and give an exact description of it in the year 1814, in the Edinburgh Medical and Surgical Journal of that year.

"I wish to call to your minds and to recapitulate a few of the points which have impressed me in the origin, diagnosis and treatment of this fracture. You know that the usual method of origin is by direct impact of the falling body upon the palm of the hand. The blow is transmitted from the arch formed by the eight bones of the wrist to a weaker and less resistant arch, the expanded lower end of the radius made up mostly of cancellous tissue.

"Certain striking phenomena always result, namely: deformity, pain and impaired function.

"This deformity has given rise to much discussion and many theories. Such men as Dr. R. W. Smith have maintained that the deformity was produced by muscular action. Another class, of which Dr. Callender is the leading advocate, maintains that the deformity is produced by impaction, while Dr. Moore, of Rochester, laid down that this deformity was produced by dislocation of the lower end of the ulna, thus forcing the tendon of the extensor carpi ulnaris out of its sheath in the lower end of the ulna, thus rendering the deformity more persistent. We all know the deformity is kept up, however, as it has been produced by muscular action, and it has been found that the muscles, chiefly operating to produce this result, are the supinator longus, the extensors of the wrist and the pronator quadratus.

"Pain is produced either by direct or indirect irritation of the nerve tissues. A certain amount of pain results of course from traumatism. Yet, it seems to me a

very large amount of pain is kept up if not produced by the spasmodic contraction of irritated and unantagonized muscles.

"There is another point which has impressed me in the treatment of this fracture and that is the protruding bunch of flexor tendons over the end of the upper fragment. You remember that it is these tendons passing under the annular ligament into the hand and to each of the fingers that render possible those complex finger motions by which a majority of the citizens in the community depend for their livelihood. Impaired function of the fingers is not so uncommon a result of Colles' Fracture as to be overlooked. A certain amount of the deformity always occurs at the time of injury, and it is a well and skilfully treated wrist indeed that carries no obvious record of the injury in after years.

"I believe deformity should always be reduced, and under ether if necessary. I believe that rest of each injured part should be secured at all hazards, and I cannot see how rest can be so well secured without splints as with them, nor does it seem logical to put the hand in an unnatural or constrained position.

"Perhaps in this connection I might call your attention to the fact which I spoke of eight years ago, that if you have noticed the normal condition of the hand when at rest, you will find that the plane of the metacarpal bones, in a condition of repose, is at an angle of 130 to 140 degrees, with the plane of the forearm extended, and when the hand is firmly clinched, it is at an angle of 110 to 120 degrees, with the same plane. Every school boy knows that it is impossible to close the hand at the point of extreme flexion of the wrist. Why should we expect strength and functional integrity of the flexors if the hand is put in the "lead palsy" or "wrist drop" position? "It seems to me the old fashioned way of two shingles is much better than such a position.

"If you will pardon me I will show you a splint which I showed you eight years ago. I will call your attention to the main points in which it differs from all others. It retains the hand in its natural position when at rest. It allows the *lower end* of the radius to be firmly applied to a *support*. It places the flexors (as to their point of application of muscular force), at the greatest advantage, thereby preserving their function. It tends to prevent the protrusion of the lower end of the ulna or radial dislocation of the hand. It reduces pain to a minimum.

"Now I made this splint out of some pieces of telephone wire in the shape of a hairpin, bending up the closed end at an angle of about fifty degrees, with the horizon fastening the open end in wood or tin, and it can thus be constructed as quickly as any other splint.

"You will also find the deformity will be less in this treatment than in others, and when neatly bandaged it is less noticeable than any dressing which can be applied, and at once appeals to the patient's comfort."

Dr. Benj. E. Cotting, of Boston, was present, and exhibited splints which he had used successfully in the treatment of this fracture.

A paper on the "*Prevention of the Drug Habit*," prepared by **Dr. Wallace W. Potter**, of Spokane, Washington, for many years a member of the society, was read by **Dr. George W. Porter.**

Discussion by **Dr. Herman Canfield**, of Bristol. The doctor stated that he had been connected with an institution, where, for a number of years, patients had been treated afflicted with the drug habit. "The paper is certainly an able one, and the advice given by the doctor is certainly very timely; but I cannot agree with one dea set forth, that we are to lay all the blame upon the physician, although the physician is greatly to blame in many cases.

"As the doctor notes in his paper, there has been an increase in the drug habit

during the past ten or fifteen years. The increase in this habit began in the more frequent use of the hypodermic syringe. It is a very pretty little thing. Men and women go into the physician's office, and they want one of these injections tried. Persons who have once taken the drug in this manner will never take it in any other. The effect of the hypodermic syringe is so immediate, so sure of relief, so satisfactory, that they never will have the patience to wait. If you will not use it, they will find the means themselves. In the cities, especially, it is a means of getting on a "morphine jag." Ladies use it as they do champagne, and men use morphine with their whiskey. I do not think that the opprobrium should all be laid to the profession, although they are partially to blame. I think it is due to the great fascination for the use of the syringe. You may give a person a number of suppositories, telling him how to use them, and also fit him out with a bottle of Majandie's solution; give him a syringe to go with it, instructing him that if the suppositories do not work to use the syringe. The patient will return with all his suppositories intact; the bottle used up and the syringe worn out.

"The use of cocaine, I do not think has become so prevalent in the New England states as in the West. Patients use it to prolong and increase the effect of morphine. Some persons get pretty full on morphine, and as its effect begins to pass off, they take cocaine, the effect is thus continued, and they keep it up, alternating morphine and cocaine I think there is one thing that should be borne in mind by the physician, and that is, to make a longer interval in the use of the hypodermic syringe, and no matter what the circumstances are, never to use the hypodermic in incurable cases attended by great pain. If you cannot relieve them, let them get somebody else, and let them assume the responsibility. As sure as they get one dose, they will surely want another, and get an appetite for the drug. I think the physician should disseminate among his patients the great danger of using the hypodermic syringe, telling them what the effect will be. I should make them understand that nobody under God's heaven can resist it. When they once form the habit, they cannot rid themselves in any way whatsoever. I think you will then find the number of habitual takers will be reduced.

"I would state that no patient who has been using the hypodermic syringe ever recovers from that use by himself. That is a broad statement. I have heard of many cases where the patients said they recovered. I have heard physicians who state the patients recovered, but I never have seen a single instance of the recovery from the use of the hypodermic syringe of the patients by themselves. The patient is powerless to withstand the terrible pain he suffers, and he will resort to its use to alleviate his misery again and again.

"The first thing to do in treating a patient with this habit is to have some competent person with the patient all the time. Do not trust him one minute out of your sight, because the result will be, he will take it if he has to steal it from under God's footstool. You ask him how much he is taking and he will answer 12 or 15 grains. You may make up your mind it is nearer 15 than 12. The first thing you do is to take away the hypodermic syringe and substitute 20 grains of morphia if he is taking 20 grains. Divide it into three doses, so that he need not suffer, and also give him 20 grains of bromide. This he takes three times a day. The patient will be very comfortable. You keep that up and increase the bromide 20 grains more, and continue to increase the bromide 20 grains daily until the effect is produced, which I am going to describe. The object is to so saturate the nervous system with the drug, both the morphia and the bromide, in order to prepare for the period when you take the morphia away. The patient becomes unsteady in his legs and very drowsy, and sleeps most of his time. In fact, until you are satisfied that he is well under its influence, you keep this up until you withdraw it altogether. After he has been under this treatment four or five days, which will vary in different cases, until he is com-

pletely saturated and under the effects of the bromide, then it is time to stop the morphia. Commence then to give one-quarter of a grain of sparteine three times a day. The heart is the only thing you must watch all this time. There is another drug you can use in the place of sparteine and that is digitalis. I prefer to save the digitalis for an emergency. If you use sparteine you should be very careful and particular to give enough to keep the heart going full and strong. You should go on with the sparteine and increase the dose of bromide until the patient is in a favorable condition. In the meantime he is perfectly happy and contented. Now when you have him in that condition put him to bed. He won't object to that, because he is rather dull. You put him to bed and in the evening give him a drachm of cannabis indica. Be sure you have a good preparation of the drug. There is no drug so uncertain as cannabis indica. This is your sheet anchor. He may sleep quietly, but the main point is to see that he has no shock. Keep up the cannabis indica, so as to get him to sleeping quietly, which he will do in a few hours. I should have said when you give him the cannabis indica you stop the morphine entirely. Drop it off in one dose. At the same time give your sparteine and reduce the bromide twenty grains each day. In some cases this is not required until after the effects of the cannabis have worn off. As a rule, you had better hold on to the bromide for fear some of the pains might return. In two or three days the patient will have become quite himself. He has no pain and that is the main point the physician is after. You now add to the sparteine $\frac{1}{25}$ of a grain of strychnia every four hours, gradually lessening the doses until he is thoroughly cured. If at any time there are symptoms of collapse, as there are very likely to be during the twenty-four hours after the complete withdrawal, give $\frac{1}{60}$ grs. Atropia hypodermically, and surround your patient with hot water bags—dry heat in any form is the best remedy for the collapse and pain of this period, $\frac{1}{100}$ grs. of nitro-glycerin also answers well, and as last resort a hypodermic of morphia will set everything all right. After the patient is up he will be subject to periods of intense depression, when the temptation to return to the drug will be well nigh unconquerable. A mixture of fl. ext. coca ʒi, capsicum m x and nux vomica m x, repeated as often as required will remedy this.

Diarrhœa is favorable unless it becomes profuse, when the usual remedies are used, with rectal injection of laudanum as last resort.

Vomiting is best relieved by small blister over the stomach, intense localized pain is also dissipated by the blister.

After the withdrawal sleep is the most important matter demanding your attention. The cannabis indica will answer for a few days, then resort to paraldehyd, chloralamid, sulphonal, trional, etc. A good meal before vomiting or during the night of some easily digested food will greatly aid in this matter. Often the coca mixture will answer alone. This treatment in my hands has been very successful and as far as I have noticed without danger.

Dr. William J. McCaw continued the discussion, in which he advocated some legislative action for the stopping of advertisements of so-called cure-alls. It is fair to suppose, and it is so considered, that these preparations do contain those drugs which are deleterious. If it is necessary that a patient should have the drugs, the prescribing and administering of them should be in the hands of the physician. It is not right to leave it in the hands of every person. And after the drug has been prescribed and the patient desires the prescription refilled, the physician should determine that fact and the druggist should not re-fill it. Dr. McCaw related a case of the drug habit that he had treated successfully, and at the end of 25 days the patient was well.

Dr. J. Frederick Haller, in discussing the paper, said that much credit was due

Dr. Canfield in particular, for having delighted the society with a discussion that was both practical and revealed much original work. He would assert, that while some authors have used some of the remedies mentioned by Dr. Canfield sporadically for the cure of the opium habit, no one had, to his knowledge, used them in the same systematic manner Dr. Canfield had. The only question about using so much bromide might be, the production of bromism.

Opium had been used as far back as the earliest history and Islam asserts that the Hindoos had used it for centuries. In the last decenniums America and England have learned to use it from the Chinese. England brings into China over seven million kgrm. of the drug annually. Foremost among American writers on this subject is *Alf. Calkins*, of Philadelphia, who published "Opium and the Opium Appetite," in 1871. The first sensation upon taking opium is a feeling of warmth and happiness, all sensations are pleasant, imagination is heightened, all sorrows disappear, everything both past and present appears in the brightest light, all desires seem easy to satisfy and no obstacles obstruct the progress.—(*Tideman*, *Freiher v. Bibra*, *Alf. Calkins.*)

Later, comes a feeling of lassitude and inability to act, disturbed sleep, bodily pain, loss of appetite, indigestion, loss of flesh; the facial expression is blank, the face pale, or grey as ashes and pinched; the eyes lie deep in their sockets, glassy and expressionless; the mental faculties become dulled and the desire to meet other people is gone; inability to work or think is common. Sometimes the mental faculties and the physical strength are momentarily abnormally brilliant and increased.

The central nervous system, however, suffers the most from the use of opium or morphine, and after that the spine. Both are at first stimulated but later more or less paralyzed (*Bermatzik & Vogl*).

Bushheim states, that the higher the individual stands in mental development, the more severe and rapid the effects, and the lower the individual stands mentally, the slower and less noticeable are the effects. *Myosis* follows usually from changes in the brain (*Rumpf*). *The respiration* always becomes slow, from the paralyzing effect of the drug upon its centres, and death from opium or morphine is usually looked upon as coming from this source.—(*Witkowsky.*)

The circulatory apparatus is more or less disturbed, partly from its influence on the nerves, partly on the muscles.

The depression or lassitude following large doses probably comes from lessened blood pressure. The congestion of various organs particularly of the head, roseola and other skin diseases, are very likely attributable to this —(*Preisendörfer.*)

The constipation present is due to disturbances of the splanchnic nerves, says *Nothnagel.* Probably also to disturbances of the sensory intestinal nerves and by lessening secretion and the stopping of peristalsis.

The secretions are usually diminished; the bronchial mucous membrane is dry, as is the mouth and nasal cavities. The secretion of bile and gall, as well as milk (in women), is also diminished (*Rutherford*). In the brain the secretions are diminished; sugar and albumen is found there in abundance, (*Eckhard*).

Osmosis and *exosmosis* is also interfered with, owing to inability of nerves and muscles to act.

Marmé, *Polstorff* and *Schützenberger* claim that the drug is changed in the system into *oxydimorphine* or *oxymorphine* and as such, and in form of other alkaloids, it is partly eliminated and partly accumulated in the system.

The treatment of the opium habit as indicated by Dr. Canfield is certainly original and admirable; it may, however, not be amiss to speak of the "cures" established for the opium habit, etc. by Keely and others.

Aside from being a clever and bold way to make money out of these unfortunate people addicted to this habit, these "cures" amount to nothing. During last

summer I had excellent opportunities to study the *modus operandi* at these so-called "cures," dictated partly by curiosity and partly by scientific interest for anything that can help us over 'a rough stone in our road.'

They begin treatment with hypodermic injections four t. daily of a fluid which the *Chemisches-technisches Repertorium* of Berlin, 1893, has analyzed and found to be:

0.75 grm. bi-chloride of gold.
0.4 grm. chloride of ammonia.
0.065 grm. strychnine.
30.00 grm. fl. extr. of coca (in tonic only.)
30.00 grm. glycerine.
30.00 grm. distilled water.

Some "cures" use atropine in addition to the above.

After a while, apo-morphine is mixed with the hypodermic injection (the green liquid), in smaller or full doses to nauseate patient and make him vomit (the spiritus or drug). The physician in charge must be clever to give the apo-morphine injection either immediately before or after a drink or dose, preferably before. The tonic (generally called "dope"), contains the same medicine as the injection, and is, besides, made up of fl. extract of coca in full doses (and a tablespoonful of coca between times is given when patient craves opium).

The principal ingredients in the "dope" are, however, fl. extract cascara sagrada, enough to keep just short of diarrhœa, with tr. of rhubarb U. S. P.; also tr. of gentian and cinchona, U. S. P. Tr. of gentian and cinchona are given in one-half teaspoonful doses every two hours. If patient is extremely nervous, 10 grains of assafœtida are given three to four times daily, and if absolutely necessary, bromide and quinine; bromide is not otherwise used. For weak heart digitalis is used. As a matter of course, appetite and strength increase under this treatment, and the patients are kept on a most substantial diet. The craving for the drug becomes less as the system is toned up, particularly the nervous system, with strychnia, ammonia and assafœtida directly, and through corrected digestion and a nourishing diet indirectly. Four to six weeks are generally considered long enough for a cure. The patient so treated can, however, as has been demonstrated repeatedly, begin the use of the drug again if he so desires, or if he is induced to do so, and there is nothing in the treatment to hinder him or to render him free from its alluring temptations. There is great danger, however, in those afflicted with heart disease, disease of the blood vessels or of serious disturbances in the central or special nervous centres from sudden death, either by rupturing a blood vessel (usually in the brain), while vomiting, or from the over dose of atropine, etc.

Dr. T. P. Bancroft, superintendent of the hospital at Concord, New Hampshire, being present, was invited by the President to make a few remarks. "It is by accident that I happen to be with you to-day. I was in Providence, and one of your members very kindly invited me to your meeting. I did not expect to hear a paper upon this subject, and I have been very much interested in this discussion, because my practice in Concord has brought a number of cases to my notice. As has been said, when the hypodermic syringe was first used, it was used principally by the physician. At that time the influence of the physician was more than now. Now everybody knows about the hypodermic needle, and every one knows where to get morphine, and how to use it, and in a large measure it becomes a habit, but nevertheless I think that a physician has a distinct duty to the public to perform. It has been said here, it should never be given in chronic and painful disorders. I do not see how we can help it. The patient has but little time to live and I think it would be cruel to withhold it. The people who more frequently develop the habit are those with a neurotic temperament, and I think we should be very careful about ever using or giving it to them.

"I was interested, too, in regard to the treatment, and what has been said to-day, because in Concord, New Hampshire, we have had two of the recent "cures" established. I have had an opportunity to see the cases which have come from these institutions, and it has led me to feel that we, as physicians, ought to know about the treatment. I hardly think their treatment is a cure. Except so far as the persons so treated have a strong will power to do better, they may have an influence in controlling that habit, but I see no other cure whatever.

"In regard to the use of this drug you are all familiar. The taking of opium has become very prevalent, particularly the habit of smoking. That, of course, is in large cities, and particularly where the Chinese dwell. On the Pacific coast opium smoking is very prevalent. The Chinese habit is extending to the American people, largely among women, and even to people who ought to know better. It is a very dangerous and insiduous habit. I have had a very peculiar case, but it happens to be the only one that I have ever seen. A young woman who began the habit of smoking and gave it up from lack of funds and was using the 'liquid of the ashes of opium' which had been smoked once. There is a name for it, and she informed me that it was a prevalent habit among the Chinese who cannot afford to get the drug. They take the ashes and put so much ashes in a bottle, shake it up and drink the contents. It is a vile mixture, but yet, she said, she got sufficient effects of opium from that mixture to produce the characteristic effects of the drug. In her case we succeeded in getting full control. But in six months time, after she left us, I was sent to see her in Boston. I found her in a miserable condition, thoroughly back to her old condition.

The effect of the opium habit on the mind is getting to be recognized as a very peculiar condition. You know that there is a strange condition of the mind following the alcohol habit. We have now a condition of the mind following the opium habit. The person gets suspicious, and is given to falsifying. He has no regard for the truth. Persons who were known for their veracity and truth are given to exaggerate, and state what they do and what they have accomplished in life, not to accomplish any specified purpose, but simply for the sake of telling large stories. I have a man whose chronic case will never be any better. His mind is undoubtedly damaged in that peculiar way. I think the medico-legal aspect will assume more prominence, because the habit is becoming very extended throughout the country.

I have been very much interested in your proceedings, and thank you very much for giving me an opportunity to speak on this important subject.

Dr. C. H. Leonard inquired how they were to discriminate between persons coming to their offices and asking for the syringe, which was duly replied to by Dr. Canfield.

Dr. Noyes, the President, suggested that opium habitues will very quickly find an excuse for asking for this particular drug or suggest that that might be just what would relieve them.

Dr. John W. Keefe read a paper on the "Operative Treatment of Appendicitis." This paper was discussed by **Dr. John W. Mitchell**, who gave a clinical history of the three stages or kinds of appendicitis; the mild, the severe and the formative.

Dr. W. W. Keen, of Philadelphia, in discussing the paper, said in brief: "I think the first thing we notice in modern literature is the anatomy of the appendix. In a paper recently published in a medical journal, it was stated that an investigation of the anatomy of a large number of cases of this disease, in almost all of them the appendix was found in different locations. They run in the immediate vicinity of the

ileum and cecum, and over the frame of the false pelvis into the cavity of the true pelvis. It is an indisputable fact that the appendix in women is a very much shorter one than in men, and its valve at its mouth is very much less developed, and it is due to this fact that fewer women have this disease than men. I was very much impressed, in Dr. Keefe's paper, with the similarity of a case he reported to one that I operated on last winter, where the appendix extended over the upper surface of the liver. In such a case as this you will remember that Dr. Keefe reported that it was not between the pelvises, but it was behind the colon.

He further reported a case of a woman on whom he had operated. The opening being just under the border of the ribs. I threw the colon well over one side, and then it was drawn well over the other side, and I thereupon took the colon in both hands and examined it. I could find no evidence or abscess, and closed it up with the certainty that there was some trouble which I had not found, and could not find. To my regret the woman died. At the post mortem, I found an abscess that did not hold over 5 to 10 drops of pus, behind the colon, to the left of the liver, which would not have been large enough to be found. I mentioned this fact, and within the next 30 days at the hospital, an identical case like this was found and the abscess was located.

It is a fact that all of us a few years ago confused, and even at the present time, are apt to confuse appendicitis with peritonitis. In diagnosis it is well to localize, if possible, the seat, and ascertain which of the two is the cause of the trouble.

Another point which I noticed in Dr. Keefe's paper, was, that he condemned the use of the aspirator, and in this condemnation I agree with him.

Again I noticed that there is great danger of hernia after appendicitis. I would strongly urge that the incision be made small at first. It is easy to enlarge it, and not so easy after you have made an incision to close it."

Dr. (?) Mary O. Walker, of dime-museum reform fame, being in town, attended the meeting and gave a short talk for about five minutes. She said she was glad to have an opportunity to relate a little of her experience with regard to tuberculosis. She gave as one of the causes of these tuberous formations tobacco smoke, and that a large number of cases were due to this cause alone.

PAN-AMERICAN MEDICAL CONGRESS.

THE opening of The Pan-American Medical Congress took place on Tuesday, September 5, 1893, at ten o'clock, in Alvaugh's Opera House. President Dr. William Pepper in the chair. There were about seven hundred doctors in attendance. After the ceremony of calling the convention to order, Dr. Pepper advancing to the front announced that Rt. Rev. Wm. Paret, Bishop of Maryland, would invoke the blessing of God upon their deliberations. Bishop Paret then repeated the Lord's prayer and offered an invocation, asking the blessing of God upon the deliberations of the congress. After the blessing, Dr. Pepper again rose and said: "It is in accordance with the deep interest taken by the government of the United States in the organization and success of this congress that our honored President has kindly come this morning, in the exercise of his function, to open formally

the first Pan-American Medical Congress. I have the great honor of presenting President Cleveland."

THE PRESIDENT'S ADDRESS.

"The part assigned me on this occasion admits of few words. It, however, affords me the opportunity to say how pleased I am to be in any way related to an assemblage such as this, called together in furtherance of the highest and noblest purposes and desires. I hope I may also be permitted to add that the protection of the public health and the prevention of contagious diseases are objects properly brought under consideration at the capital of a nation which appreciates fully the serious importance of everything whichs aids in making intercourse between civilized countries and commerce between them safe and easy. (Applause.) It is also fitting that those who devote themselves to saving human life and the alleviation of human suffering should consider the modes of reaching these beneficent ends at the seat of a government whose greatest regard is the welfare and happiness of the individual citizen. (Applause.) It only remains for me to declare this congress of the Pan-American Medical Society open for the transaction of the business which has called it together."

After President Cleveland's address, Dr. S. S. Adams introduced Commissioner Ross, who right royally welcomed the distinguished gathering to the District of Columbia. After the above remarks, Dr. Pepper spoke briefly as follows:

In assuming the task devolving upon him, he said, it would become his pleasant duty to deliver an address tomorrow evening on the scope of the congress. It would therefore be improper for him at this time to speak at length. The program, he said, exemplified the peculiar constitution of this body. Various representatives of constituent countries would be called upon to address the body. The invitation extended by the United States had been cordially accepted by every country. As a part of the proceedings of each general session, representatives of different countries would be called upon. This congress represented the medical profession of the western hemisphere. This congress, it was hoped, was but the first of a series of congresses that would consider questions of such great moment to every country. They called this congress Pan-American according to recent usage. Why not American? Are they not all Americans? He would be happy to see as the result of a few such congresses this Pan-American congress merged into the American Medical Society, whence it had its origin.

After the remarks of Dr. Pepper, quite a number of delegates were introduced, and responded with pleasing remarks. At this point, Secretary-General Charles A. L. Reed, of Cincinnati, read his report.

The closing event of the first morning's session was an address by Prof. F.A. Risquez, of Caracas, Venezuela, on *The Medical Flora in Its Relation to Medicine.*

The second day's general session of the congress was opened with prayer by Rev. P. J. Garrigan, vice rector of the Catholic University.

Dr. S. S. Adams, chairman of the committee on arrangements, announced a reception by President Cleveland at the White House at 5 o'clock in the afternoon to the delegates to the congress and their

wives and daughters. Brief addresses were then made by visiting delegates from other countries. Victor Louis Gilleo, for Haiti; Dr. Mendizabel of Orizaba, for Mexico; Dr. Manuel A. Muniz for Peru and Dr. Pedro Lagleyze, for the Argentine Republic. These addresses were the formal expressions of thanks of the governments represented for the honor of the invitation to send delegates, and of hopes that the sessions would result in much good to the people of the American continent.

Dr. Plummer, of San Francisco, chairman of the local committee on arrangements for the meeting of the American Medical Association to be held in May, 1894, was introduced and eloquently explained the advantages and attractions of that city and State for the projected meeting.

The formal address of the occasion was then delivered by Prof. Rafael Lavista, M. D., of the City of Mexico, the leading surgeon of that country, on the surgical treatment of cases of gangrene.

President Pepper announced that he had been requested to present a resolution for reference to the international and executive committee, as follows:

In view of the importance of taking the necessary steps to insure the prosecution of the great continental work of the congress, the international executive committee is hereby empowered and requested to appoint suitable international committees on subjects of proper governmental recognition of state preventive medicine, on uniformity in American pharmacology and on medical education.

The following resolution was reported from the section of hygiene, endorsed by the section on railway surgery, for the action of the whole congress:

Resolved, That in the opinion of the section of hygiene, climatology, and demography of the Pan-American Medical Congress, the interests of the public health in every country should be and must be intrusted to a department of the government especially charged with their administration; and that, while the precise form of administration may be left to legislation, the indispensable requisites are that it shall be national, that it shall have parity of voice and influence in the national councils, that it shall have independent executive authority under the limitations common to other departments and that it shall be intrusted to educated and experienced medical men, who alone are competent to assume its responsibilities.

The resolution was referred to the international executive committee.

The final meeting of the congress was held the morning of September 8.

The Rev. Dr. Byron Sunderland, of the First Presbyterian church, the oldest pastor in Washington, opened the proceedings with prayer. Addresses of thanks and congratulation on behalf of their respective countries were made by Dr. Garcias of the United States of Columbia, in Spanish, and by Dr. Ferd C. Valentine, ex-Surgeon General of the Army of Honduras, in English, and by Prof. Rafael La Vista of Mexico.

Secretary General Reed read the report of the International Executive Committee. The committee accepted the invitation of the Mexican delegates to hold

their next meeting of the Congress in the City of Mexico. The date will depend upon the meeting of the International Congress in Europe. The various recommendations by the several Sections were generally adopted by the committee. The most important exception was the one advising a temporary suspension of immigration from European countries in which cholera is now prevalent. It was deemed best, the report stated, not to consider this resolution at the present time. Thanks were given to President Cleveland, the Congress of the United States, the Surgeons General of the United States Army, Navy and Marine Hospital Service, the officers of the Congress, the local Committee on Arrangements, the press and the railroads for their efforts to make the meeting of the Congress a success. The report was adopted.

Dr. Gihon presented the following resolutions, which the Section on Hygiene, on motion of Dr. Shakespeare, had adopted:

Resolved. That the thorough disinfection, without discrimination, of every piece of baggage, dunnage or article of personal effects belonging to the immigrant classes and to the crews of immigrant ships, and the exaction of scrupulous cleanliness of all vessels arriving at American ports, should be rigidly enforced at American ports, supplementing and enhancing the protective value of similar treatment at the ports of departure, especially at times when cholera exists in Europe, as a sanitary measure, second only in efficiency and importance to the temporary suspension of immigration.

Resolved. That the habitual and thorough disinfection of all personal effects liable to carry contagions of immigrants to the American hemisphere, and of dunnage of crews of vessels carrying these immigrants from any quarter of the globe, and the exaction of scrupulous cleanliness of all vessels arriving at American ports, should be enforced at all times, as the most efficient means of greatly lessening the introduction into this hemisphere of the seeds of various contagious diseases which are now and have been in the past almost constantly conveyed by the immigrant classes and distributed widely among the populations of this hemisphere.

These resolutions were referred to the International Executive Committee. Dr. Montezambert, of Canada, stated that that country had already put into effect the recommendation of the resolutions regarding the disinfection of immigrants' baggage arriving at her ports.

On behalf of the visiting delegates and guests of the Congress, Dr. John C. Phillippo of Bermuda, Professor Ernest Hart of England and Dr. Rafael Lovisto of Mexico, returned their thanks for the cordiality and bounteousness of their reception and entertainment while in Washington. Dr. Phillippo paid a warm and eloquent tribute to the memory of George Washington, whom he designated as the greatest character in history, which the Congress rapturously applauded.

President Pepper then, in a few well chosen words, expressing the purpose of those connected with the Congress to stand by it, develop it and make it more useful to the members of the profession throughout the continent, declared the Congress adjourned, to meet in the City of Mexico either in 1896 or 1897.

THE WORK OF THE SECTIONS.

HYGIENE.

In the Section on Hygiene, Medical Director, Albert L. Gihon, U. S. N., was in the chair, and the English and Spanish secretaries were Dr. Peter H. Bryce, of Toronto, Canada, and Dr. Pedro Jose Salicrup, of New York City The attendance was quite large, including besides a number of distinguished specialists in these particular departments, several non-professional people whose interest in hygiene and kindred subjects brought them to learn something new.

Dr. Beall, the senior honorary president, took the chair while the president delivered his address. Dr. Gihon took as his text the words of the Teacher of Humanity concerning the "mote in thy neighbor's eye and the beam in thine own," and upon it he built a powerful sanitary sermon, which was almost as startling as it was serious. The time was coming, he said, when the professor of hygiene would be placed among his peers in the State; for the armies of disease could overcome all the arts of war, destroy commerce, and bring agriculture to a standstill. Health was necessary to the Cabinet ministers as well as to the people, therefore a secretary of public health was one of the officers of the future.

Dr. Gihon then contrasted the present conditions for conserving health in the Navy with those which prevailed when he entered the service nearly forty years ago. The revolution and improvement were remarkable, and now the Navy took as much care to preserve the lives of its own men as it did to injure the enemy.

Speaking of the impending incursion of cholera into this country, Dr. Gihon declared that the precautions had been taken too late. The health of a nation involves international co-operation, because no State line is epidemic-proof, therefore every government should have a department in the hands of trained and competent medical men to care for its health at all times.

The spasmodic precautions against epidemics from abroad was an instance of magnifying the motes on the horizon while we close our eyes to the beams that are in them. Comparatively speaking, said he, the cholera kills but one man where more familar but equally deadly diseases, such as tuberculosis, kill thousands. Hygiene in steamships, railways and street cars was imperatively demanded.

The speaker told of a trip he took South with a number of consumptives, which filled him with more fear than a yellow fever, cholera and diptheria epidmic which he had gone through. The possibilities of contracting blood diseases from contact with diseased persons or their belongings were appalling. For a person who will thus conceal and disseminate a virulent disease Dr. Gihon recommends punishment for misdemeanor.

The systems of garbage collection and street-cleaning at present in vogue in most of our cities were severely criticised by the speaker. The graceful sweeping trains of the ladies, too, would disclose a collection of dirt and bacteria which would astonish and shock the fair wearers.

The sanitary inspector, said he, was destined to become the most important functionary of future civic government. His work would not be merely perfunctory, but deliberate and complete, for upon him would depend the public safety.

The tide of immigration into this country he compared to a filthy river pouring its flood into a lake which has no outlet. When the stream was small the contamination was not noticeable, but now it was only a matter of time when the whole lake would take on the tinge of pollution. What the result would be no one could tell.

In conclusion, the speaker spoke a few words to the Spanish delegates in their own language, and retired amid applause.

Surgeon-General Wyman was scheduled to deliver the opening address of the section on marine hygiene and quarantine, but in his enforced absence this portion of the programme was passed over.

Prof. Comegys, of Cincinnati, then presented a paper on the "Proper Status of the Medical Profession in the Government of the Nation," which was in some respects supplementary in character to the address of the president. Prof. Comegys agreed with Dr. Gihon as to the importance of the medical profession being recognized by the Government. He supported this proposition by the adage, "The health of the people is

the supreme law," and quoted from ancient history to show how the conservators of health had been honored by the State. But medical men desired this recognition not on account of the empty honor, but in order to give direction and authority to their concerted efforts toward the preservation of the public health.

In this connection he read extracts from a bill to be presented to Congress for the establishment of a department of public health, the secretary to rank as a Cabinet officer next to the secretary of Agriculture. This plan seemed to meet with general approval, for it was followed by hearty applause, and Prof. William B. Atkinson, of Philadelphia, offered a resolution to the effect that the sections in joint session favored the establishment of such a department. Dr. Dans, of Lancaster, seconded the motion, and Dr. Hibbard, of Indiana, president of the American Medical Association, opened the discussion.

The first duty of a government was to make its people happy, said he, and one of the first requirements of happiness was health, therefore he favored the proposition.

Dr. Formento, of the State Board of Health of Louisiana, favored such a department, provided that it should be purely advisory and not interfere with the practical enforcement of health provisions by the local authorities. Dr. Traynor, of Missouri; Dr. Davis, of Philadelphia; Dr. Grant Bey, of Cairo, Egypt; Dr. Baker, of Lansing, Mich.; Dr. Probst, of Ohio; Dr. Lee, of the Pennsylvania State Board of Health, and others discussed the resolution, which was adopted.

OBSTETRICS.

Dr. Mitchell, in opening the meeting, spoke of the vast improvements that have been accomplished in late years in medical science.

Dr. W. H. Baker, of Boston, followed with a talk on the subject of "The Care the Pregnant Woman in the First Half of Utero-Gestation."

Dr. John O. Polok, instructor of obstetrics at the New York Post-Graduate Medical School, and the Long Island College Hospital, of Brooklyn, read a paper on "The Hemorrhages of Pregnancy and their Management."

Dr. Hugh Hamilton, of Harrisburg, Pa., read a paper relative to the application of graphics to the fœtal heart sounds. Dr. Hamilton divided his subject into four heads. First, the securing of these tones by a special instrument; second, the transmission of these notes to the human ear; third, recording of them so that they may be permanent, and compared on the tablet with those of the mother made at the same instant; fourth, its practical application in doubtful pregnancy, whether synchronous or otherwise.

Dr. Sarah Hasket Stevenson was the only lady to read a paper, although there were several present throughout the meeting. Her subject was "A Study of Placenta Prævia, Especially the causes of the Hemorrhages."

Dr. E. F. Tucker, of Portland, Oregon, read a paper on "Prolapsus Uteri."

"The Mechanism of Labor," by Jacob Chase Rutherford, M. D., of Providence, R. I., was the next paper read.

The theory of the mechanism of labor, as advanced by all ancient and many modern obstetrical writers, is entirely without foundation. The ground taken that the paturient canal is curved cannot be maintained for a moment, when we consider the anatomy of the parts, the changes that take place during pregnancy and the phenomena of labor. . . . The mechanism of labor, briefly, is as follows: In head presentations, occipito-anterior, the head descends in the axis of the uterus in a straight line, until it reaches the trough of the levator-ani muscle, when rotation begins; continuing to descend in the same line, it reaches the bottom of the trough,

which is the floor of the pelvis. By this time rotation is completed, and now begins the hardest part of the labor, for the head having reached the floor of the pelvis, cannot go any further, but must change its direction and pursue a course at right angles with the one it has been following. This change in direction is brought about by extension of the head into the vaginal canal. As the head extends, the body descends, and by the time the head is fully extended it has passed the vaginal orifice, and the shoulders are at the utero-vaginal angle. They pass the angle by a lateral bending of the body and are followed by the hips and legs.

In occipito-posterior cases, labor is prolonged by the impossibility of further flexing an already fully flexed head, and the perineum has to be enormously distended before the head can be delivered.

In face-cases mento-posterior delivery is impossible because the head cannot be further extended, and the stiff, straight fetal body cannot be bent around the angle. A knowledge of the mechanism of head-cases embraces a knowledge of the mechanism of other presentations.

The deductions to be drawn from the above theory are: first, the parturient canal is angular, not curved; second, when the presenting part has reached the bottom of the trough in the pelvic floor, rotation is quite complete; third, flexion and extension take place at the utero-vaginal angle; fourth, in the high forceps delivery traction should be made in the line of the uterine axis, and in the low forceps, delivery in the line of the vaginal axis.

PHYSIOLOGY.

In the Section on Physiology, Dr. H. G. Beyer, of Annapolis, Md., read a paper on "Some Observations on the Normal Growth and Muscular Developments of the Human Body Under Systematic Exercise."

The doctor, who is himself a man of remarkably fine physique, completely exhausted his subject. His paper could readily make a good size book, and was intensely interesting to all persons interested in college athletics and the development of the human system by regular and healthy exercise. The result of several of the doctor's experiments on the students at the Naval Academy and at Amherst College were made known for the first time.

It was argued that running was one of the best lung developing exercises, and an exercise that when not carried to excess, could not fail to benefit the student or young athlete.

Some rather surprising revelations in regard to football exercises were told. In one of his experiments with some thirty football players the doctor said that in only two instances did he find any material lung development.

That was in the case of two half backs, whose lung power had increased to some very material extent. With the other players the accumulation of muscle about the chest and arms was so great that it retarded the enlargement and development of the lungs.

Nearly the entire session of the section on physiology was taken up in listening to the doctor, who was warmly applauded at the conclusion of his address.

LARYNGOLOGY.

In the Section on Laryngology the address of the president of the section, Dr. E. Fletcher Ingalls, of Chicago, was a review of the work of the medical profession in the treatment of the diseases of the throat and chest, and a prediction of greater advances in the future.

One of the interesting papers in this section was on "Reflex Epilepsy from In-

tra-nasal Disease," by John Roe, of Rochester, who related a number of instances under his observation where the occurrance of epileptic attacks was entirely abated by the removal of irritating growths and protuberances on the sensitive surface of the inner nasal area. The frequency, said Dr. Roe, with which epilepsy has been found to result from intra-nasal disease emphasizes the importance of interrogating the nose in all cases of epilepsy and especially in those where the cause is at all obscure.

Other valuable contributions to the meeting were;

By Dr. Angel Gavino on "Microscopical Diagnosis of Consumption;" "Some Forms of Nasal Reflexes," by S. K. Merrick, of Baltimore;" 'Alumnol in the Treatment of Diseases of the Throat and Nose," by J. Mount Bleyer, of New York.

GENERAL MEDICINE.

In the Section on General Medicine, Dr. Vaughn read a paper on "Immunity from Infectious Diseases." This was the opening address, and occupied about an hour.

Dr. Francisco A. Risquez, Professor of Medicine in the University of Caracas and Physician to the Military Hospital in the federal district of Venezuela, followed with a paper on malarial diseases in his country. He said there were four classes of this disease, each of which he described. His paper was in Spanish and was afterwards discussed by Dr. David Cerna, who spoke in English. He called the attention to the fact that authorities emphasize the presence of pigment in the blood of malarial patients. This was in corroboration of Dr. Risquez's paper on malaria in Venezuela. He claimed that pigment in the blood was an absolute and infallible test of the disease, and microscopes of from 200 to 400 diameters would reveal its presence. In these cases Dr. Risquez recommended quinine as the most effective remedy, but Dr. Cerna had found that pharmacol was a good remedy.

The third paper of the day was read by Dr. G. Mendozabal, of Mexico, on the "History of Malarial Fever in the Valley of the Oriziba, and its relation to Typhus and Typhoid Fever." His paper was in French.

ORAL AND DENTAL SURGERY.

In the Section on Oral and Dental Surgery, Dr. M. H. Fletcher, chairman of the section, delivered the introductory address, and Dr. George Evans, of New York, read a paper on "Pulpless Teeth" which aroused an interesting discussion between Drs. Taft, of Cincinnati; Williams, of Boston; Noble, of Washington; Donally, of Washington; Brown, of Fort Wayne, and Walton, of Washington.

DERMATOLOGY AND SYPHILOGRAPHY.

In the Dermatology and Syphilography Section Dr. A. H. Ohmann-Dumesnil, of St. Louis, Mo., presided, and delivered a formal address of welcome.

Dr. William M. Welch, Physician-in-Charge of the Municipal Hospital for Contagious and Infectious Diseases of Philadelphia, read a paper. He cited statistical records of 5,000 cases of smallpox, all having come under his personal observation in hospital service.

A feature of this section is the exhibits on display of leprous specimens brought to this country by Dr. Beaver Rake, of Trinidad, and the plastic models of Dr. Gottheil, of New York, and the pathological specimens of Dr. Ohmann-Dumesnil, of St. Louis.

PHARMACOLOGY.

Prof. Joseph P. Remington, F. R. S., of Philadelphia, was elected Executive

President, and Dr. F. G. Ryan, Secretary. President Remington addressed the section on the desirability of formulating a plan for the publication of a Pan-American pharmacopœia, and considerable discussion on the subject ensued.

Prof. H. H. Rusby, of the New York College of Pharmacy, who has, for several months past been at Kew Botanical Gardens, England, investigating botanical subjects relative to their connection with pharmocology, arrived yesterday, and was in attendance on the meeting. He has also been in South America, and his address on the subject of his researches is looked forward to with much interest.

Mr. S. M. Burroughs, a prominent pharmaceutical manufacturer of London, is also in attendance on this section of the convention.

MEDICAL PEDAGOGY.

There was no one subject that attracted more attention during the Pan-American Congress than that of pedagogy. On the first day of this section's proceedings Dr. J. Collins Warren gave a brief historical sketch of the methods of teaching medicine during the past century.

Dr. Harold C. Ernst, of the Medical Department of Harvard, read an instructive paper on the "Position of Bacteriology in a course of Medical Study," which was discussed by Dr. Novy, of the Michigan University, Dr. Bayard Holmes, of Chicago, and others.

Prof. R. H. Chittenden, of Yale College, read a paper on "The Importance of Physiological Education," in which he said that physiological chemistry is something more than the mere application of chemical analysis to a determination of composition. This, to be sure, is important, but more valuable still is a proper understanding of the processes or lines of functional activity going on in the organs and fluids of the body. There is hardly a question, either in physiology or in the science or practice of medicine, which does not draw to a greater or less extent upon physiological chemistry for its solution. We must remember that our knowledge of the composition of the tissues, organs and fluids of the body is derived entirely from chemical study and investigation.

The great progress made of late years in our knowledge of the various digestive juices of the body, of their mode of action, of the character of the products resulting from the digestion of the various classes of food stuff, of the conditions favorable and unfavorable to ferment action, these and many other things connected with the study of digestion in its broadest sense, have all been accomplished by long-continued experimentation in the domain of physiological chemistry; results that have not only helped to give us broader and clearer ideas of the physiology of digestion, but have made possible much of the advance in the diagnosis and treatment of disorders of the alimentary tract.

Take from us our knowledge of the chemical composition of muscle and nerve tissue, and of the characteristics of the various substances entering into their structure and what a blank would remain! Consider the importance of our ever-growing knowledge regarding the chemical changes going on in the two master tissues of the body with their influence on heat-production and on proteid and other forms of metabolism. Then, too, the whole broad question of nutrition in general, with its bearing on health and disease, the study of the urine and fæces, with the rich results such study affords as a means of diagnosis, the study of the liver and its secretion, the bile—all are in great part chemical problems, partial solution of which has already afforded results of inestimable value. Then consider the part physiological chemistry has played in bringing about our present understanding of the manner in which micro-organisms act in the animal body, with its bearing upon the whole

question of infectious diseases. These few illustrations give us some idea of the important position physiological chemistry holds with reference to medicine, and lends emphasis to the statement that in every medical school of the land there should be a well-appointed laboratory for the practice and study of physiological chemistry in every direction bearing on medical science.

We are glad to know that Prof. Chittenden is preparing a text-book on Physiological Chemistry.

Dr. Bayard Holmes, whose writings on advanced educational subjects have made his name a familiar one to all medical educators, read a paper on "The Study of Medical Education in the United States," in which he said:

The medical schools of the United States are divided into three classes: (1) Those that are under exclusive control and support of State universities; (2) those that are under the control of university corporation, or that maintain a nominal connection with such corporations; and (3) those that maintain no relations whatever to other educational organizations. The advantages and disadvantages of each class are considered separately. Illustrative examples of courses of study and a diagram showing the amount of instruction are presented.

The tendencies of development are shown to have been as follows: (1) Medical theories; (2) medical theories plus demonstration of practice in hospitals, dispensaries and clinics; (3) the application of the best educational methods in studying the theories of medicine and the same methods in the study of clinical material. The schools of the United States are now undergoing development in the last particular by the adoption of laboratory methods of study in all departments of anatomy, pathology and clinical investigation.

The needs of medical schools are shown to lie in improved methods of teaching rather than in better facilities for clinical demonstration; in new laboratories for individual and class instruction rather than in the hospitals or laboratories for original research; in paid teachers of physiology, pathology and clinical chemistry rather than in the extension of surgery, medicine and obstetrics. Suggestions are made by means of model courses of study and by means of rules designed to govern examinations and methods of measuring work. The possibilties and limitations of some of these methods are illustrated by the exhibition of class work actually accomplished.

The relation of medical schools to hospitals is shown to be less intimate than the requirements of education and the needs of the patients demand. The position of medical courses in all but a few universities where the control of the medical school is absolutely in the hands of the university, is shown to be less intimate and less rational than that of other departments in the following respects:

1. Admission to the medical school is allowed to the untrained and uncultured.
2. The courses in the medical school do not count in the elective courses for the bachelor's degree, save in a few schools.
3. There are no fellowships and no scholarships offered in medicine.
4. The relation of the professors in the medical schools to the trustees and to the treasury of the university are not upon the same basis as that of professors in other post-graduate departments.

Relief is to be expected only in the endowment of medical schools, either by private individuals or by the State. It is urged that the State should manifest as much interest in the health and food of man as in the health and food of hogs and cattle. Attention is called to the fact that at least $750,000 is annually expended by the general government on the agricultural experiment stations alone, while not a dollar is spent in medical education. Attention is called to the advantages of

State university medical schools in their ability to co-operate with free hospitals supported by the State, the county and the city, with State boards of health and experiment stations, with the adminstration of tenement and factory inspection, and with all the many other varied activities of the general and local government.

Prof. Victor C. Vaughn, Dean of the Medical Department of Michigan University, read a paper on "Methods of Medical Education," in which he said:

Medical education should consist largely of laboratory demonstration and clinical teaching. The course should extend through not less than four years. The first two years should be given to the sciences of chemistry, anatomy, bacteriology, physiology, chemistry, electro-theraputics, materia medica and histology. These subjects should be taught by laboratory methods. The students should do, and not be content with seeing and hearing.

The third year should be devoted to demonstration courses in surgery, anscultation, percussion and other means of diagnosis, obstetrics, gynecology, ophthalmology, otology, laryngology, and the medical uses of electricity. The student should not only have practice in bandaging and fracture dressing, but should make amputations on the cadaver, and laparotomies and other operations on the lower animals. The third year student should also attend clinics.

The fourth year should be devoted to clinical and hospital work.

In addition to the above papers there were given three lecture demonstrations, the first of which was by Dr. E. Gustave Zinke, of Cincinnati, on "How to Teach the Cæsarean Section and Porro's Operation in the Class-room," which was not only beautifully but scientifically carried out by the speaker.

A demonstration of methods of teaching surgery and anatomy by free hand drawing with colored crayons, by Dr. M. H. Richardson, of Boston, was followed by a demonstration of the physiology of the heart, by Dr. J. P. Sawyer, of Cleveland, O.

We are indebted to the Cincinnati *Lancet-Clinic* for part of this report.

MEDICAL EDITORS.

The Medical Editors in attendance at the Pan-American Medical Congress, met and enjoyed a banquet, on Monday, September 4, at 8 o'clock P. M., in the large parlors adjoining the banquet hall, at the Arlington.

President Pepper held an informal reception for one hour, after which the banquet hall was thrown open. Dr. Pepper sat at the head of the table with Secretary Morton on his right and Dr. Charles H. Hughes, president of the Medical Editors' Association, on his left. After a fine menu had been disposed of, President Pepper introduced Dr. I. N. Love of St. Louis as the toast master of the evening. The doctor made a felicitous speech, and introduced Dr. C. H. Hughes, who delivered the president's greeting. During his speech he paid a high compliment to the medical press, and said that the Archimedian fever that has lifted this first Pan-American medical congress of the western world to the mountain top of professional appreciation was the medical press of this country. Without its unfaltering courage and fidelity of our craft to this congress, it would have sunk under the weight of the present financial stringency and proven a dismal failure.

THE TOASTS.

President William Pepper responded to the toast: "The Pan-American Medical Congress." He bore testimony to the power of the medical press, and said he looked back with pleasure on the time when he was associated with it as an editor. The medical press of this country, he believed, was largely responsible for the success of the American medical fraternity, just as Dr. Reed and the press were responsible for the success of the first Pan-American medical congress. There had come a time when the great questions concerning the public health could only be solved by an international conference of the extent and dignity of the present congress. While the influence of the medical press was great, it was not great enough to insure the success of a hollow cause. The Pan-American medical congress was not a hollow cause, and the medical press of the country had done yeoman service in making it possible. The conception of this grand idea belonged to Dr. Charles Reed, and no one could foretell the great benefits that would result. He hoped for congressional assistance to carry out any recommendations that might issue from this congress. He also hoped for succeeding congresses, which were certain to receive acknowledgement in the highest quarters.

Secretary Morton responded to the toast: "The President of the United States." Mr. Morton said, the President of the United States elected, ceases to be a partisan and becomes a patriot, and it gave him pleasure to testify that the President had but recently come from the hands of the medical profession as strong physically as he is courageously. He had a soft place in his heart for the men who welcomed us all into the world; with tender sympathy saw us out again.

The President of the United States is the medical director of the body politic. He is called upon in times of great financial stringency and other times when the success of his people are jeopardized to prescribe a remedy. He has but recently recommended a change of practice in the financial body, and already the prescription has born fruitful results.

Dr. James F. Hibbard of Richmond, Ind., responded to the toast: "The American Medical Association," and gave in a pleasing manner a history of that organization and its usefulness to the physicians of the country.

Dr. E. E. Liciaga, President of the Mexican supreme board of health, responded to the toast: "Our Foreign Guests." His speech was in Spanish, but after it was concluded was translated into English by Dr. W. F. Hutchinson. Dr. Liciaga thanked the congress for the kind consideration shown the foreign guests and spoke of the great beneficial results that were sure to follow the deliberations of the Pan-American medical congress.

Mr. Frank Hatton, of the Washington Post, responded to the toast: "The Press of the United States," and Dr. H. A. Hare responded to the "Medical Press."

On account of the absence of Surgeon-General Sternberg, the toast, "The Medical Department of the United States Army," was responded to by Dr. Wm. A. Hammond. Senator John B. Henderson, also acted as substitute for Surgeon-General Tryon, who was to respond to the toast "The Medical Department of the United States Navy." The toast "Our National Health," was responded to by Ex-Surgeon John B. Hamilton, and the last toast of the evening, the "City of Washington," was responded to by Dr. S. S. Adams.

Speeches were also made during the evening, by Dr. Ernest Hart of England and Drs. C. A. L. Reed, A. M. Owen and Dr. Remington of the Pharmaceutical Association.

THE SEVENTH INTERNATIONAL PHARMACEUTICAL CONGRESS AT CHICAGO.

THE AMERICAN PHARMACEUTICAL ASSOCIATION.—FOREIGN DELEGATES TO THE INTERNATIONAL CONGRESS.—PRESENTATION OF THE HANBURY MEDAL.—UNIFORMITY IN PHARMACOPŒIAS.—RESOLUTION IN FAVOR OF THE ADOPTION OF THE METRIC SYSTEM.—PHARMACEUTICAL EDUCATION.—"THE COMMON CHEMIST OF THE COMMON PEOPLE."

IN the week commencing August 14th the American Pharmaceutical Association held its meetings under the presidency of Professor Remington, of Philadelphia, in the Memorial Art Palace of Chicago, and on August 21st the seventh International Pharmaceutical Congress was commenced in the same building. Several scientific congresses were held simultaneously, and these were welcomed collectively in the Hall of Columbus by Dr. Bonney, President of the World's Congress Auxiliary. Dr. Oldberg, of Chicago, introduced the foreign pharmacists, and Mr. W. Martindale (London) made a suitable response.

On assembling, the Pharmaceutical Congress appointed Professor Remington, the late President of the American Pharmaceutical Association, President of the Congress. Delegates were received from the various countries represented, those from France and Germany being conspicuous by their absence. Great Britain was represented by Messrs. Carteighe (President of the Pharmaceutical Society of Great Britain), Martin (Newcastle), and Martindale (London). Belgium, Austria, Norway, Sweden, Denmark, Canada, and Queensland also sent delegates. The Hanbury medal, in commemoration of the late

Daniel Hanbury, was presened by Mr. Carteighe. It had been awarded to Professor Maisch, of Philadelphia, who was unfortunately on account of severe illness unable to be present; in his absence it was received by his colleague, the President, who in feeling words expresed his thanks for the honour Great Britain had thus conferred on America. Among the subjects for discussion was the possibility of formulating a universal *Pharmacopœia*. This was thought to be unattainable, but it was thought to be desirable that a small *Pharmacopœia* of potent remedies might be compiled, showing the comparative strength of the active galenical preparations; and that as revisions of the official *Pharmacopœias* were being produced, an attempt to approximate uniformity in these preparations should be made. A permanent committee, consisting of Mr. Remington, Mr. Carteighe, and Herr von Waldheim, of Vienna, was appointed to confer with the *Pharmacopœia* authorities in each country, and endeavor to carry out this scheme. The American Pharmaceutical Association has voted 1,000 dollars towards this object.

A resolution was passed recommending the universal adoption for dispensing medicines of the metric system of weights and measures; not weights only, but both measures and weights, as introduced into the new *United States Pharmacopœia*.

The subject of Pharmaceutical Education was also discussed, and resolutions adopted that (1) a preliminary examination should be passed before apprenticeship; (2) a not less than four years' apprenticeship, which should include a year at a college or school of pharmacy, the latter being (3) a compulsory curriculum.

On the subject of Sanitation and Adulteration it was resolved: "That in the judgment of this congress the educated pharmacist is a natural and proper expert for measures of public health, not only in the prevention of adulteration, but in the inspection of water supplies, the enforcement of good sewage, etc. The pharmacist is by virtue of his profession the common chemist of the common people."

An Executive Committee for the continuation of, and preparation for, the next Congress was appointed.—*Correspondent B. M. J.*

A doctor in Pine Bluff, Ark., who is hardly twenty-one years of age, has done eleven laparotomies, all successful, and the *Medical Record* says, "This proves that the doctor is a very enterprising man; but what can be the matter with the Pine Bluff ovary?"

Quite a sensation has recently been made in Boston by the successful application of wool-fat or agnine to the skin for the removal of wrinkles. When applied with rubbing, it passes directly through the skin and acts as a nutrient to the fatty tissues beneath. An ancient dame has succeeded in removing nearly all the crows-feet from around her temple, and the remedy is fast becoming very popular.—*Ex.*

INTRA-INTESTINAL INJECTIONS OF HOT WATER AFTER SEVERE HŒMORRHAGE.

BY JACOB C. RUTHERFORD, M. D.,

ADJUNCT PROFESSOR OF OBSTETRICS AND DISEASES OF WOMEN IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF VERMONT.

THERE is nothing in obstetrical practice that gives the physician more anxiety, than hœmorrhage. It may come on at the most unexpected time, may be slight or profuse—a drop or a flood; it may do no harm, or it may jeopardize the woman's life, and there is nothing that makes the physician feel more helpless.

Various methods are employed to refill the depleted veins and to stimulate the weakened heart. Among these are the intra-venous injection of blood or milk or saline solutions; the hypodermatic injection of brandy or digitalis or saline solutions, and the injection of hot water into the rectum.

All of these methods are good, and have been successfully employed, but they are open to the serious objections that they require (with the exception of the rectal injection) rather elaborate apparatus, and what is of much greater importance, time. When a woman is almost exsanguinated from post-partum bleeding, or from a ruptured tubal pregnancy, it is necessary to act with the utmost promptness, and if by a simple, easy method the desired results can be obtained, it is the physician's duty to avail himself of such means. We have in the common fountain syringe an instrument which will answer every purpose in such cases; it can be used absolutely without danger, either from sepsis or shock, and is always at hand.

The following case illustrates the point I wish to make: In the early autumn of last year, a boy living in one of the country towns of Vermont, was accidently shot in the thigh. There was not a great deal of bleeding from the wound, but the leg was soon badly swollen and discolored. He was sent to the Mary Fletcher Hospital in Burlington, where he came under the care of Dr. John B. Wheeler, who, upon examination, found that the swelling and discoloration arose from extravasation of blood in the tissues, and decided to cut down and tie the bleeding vessel (the femoral artery), as the boy's condition was such that amputation was out of the question, he being almost bloodless. Dr. Wheeler very kindly invited Drs. H. C. Tinkham, B. J. Andrews and myself to assist him. The patient was placed on the table and etherization begun. The pulse began to grow weaker and I expressed my doubts of the possibility of proceeding with the operation. The question was discussed for a few minutes, when it occurred to me that as laporatomy

patients are stimulated during an operation by flushing the belly with hot water, the same might be done in another way in this case, which idea, meeting with Dr. Wheeler's approval, I carried out in this wise: Throwing a small quantity of salt into a quart of hot water (temperature about 110° F.), I took a Davidson syringe and put a large elastic catheter on the nozzle; I then introduced the catheter its entire length into the rectum, and through it I pumped as rapidly as possible the hot salt water. The effect was magical; the pulse grew stronger and slower, respirations were deeper, and the skin had a more healthy look. The improvement was so marked that the operation was begun. Fifteen minutes afterwards, the pulse again weakening, I introduced a stomach tube into the colon seventeen inches and threw in two quarts of the hot salt water, which had the same effect as the first injection. The quantity of water caused quite a fullness in the boy's belly, but so rapid was absorption that in a very few minutes the belly was flat again. Once more just at the completion of the operation, two quarts more was carried twenty-three inches into the colon and the boy put in bed. At that time he had a good strong pulse and looked in much better condition than when he was put on the table. He lived fourteen days, whereas had he not had the injections he would have died on the table.

Cases are recorded where small quantities of hot water—a pint or more—have been thrown into the rectum, but I think this the first recorded case where it has been thrown above the sigmoid flexure; certainly there is no record of its having been carried up twenty-three inches.

In post-partum hœmorrhage, in abortion, in ruptured tubal pregnancy, in ruptured uterus, in fact in any case of profuse bleeding, the same plan of treatment can be carried out with a fountain syringe in this wise: To a quart of water of the temperature of 110° to 115° F. add two teaspoonfuls of salt and pour it into a fountain syringe from which the nozzle has been removed. Introduce the oiled syringe tube into the rectum and push it up; should it meet with obstruction, let a little of the water run into the gut, which will be dilated thereby. Continue to push the tube in until the proper limit is reached and then let all the water run into the colon; then withdraw the tube and be prepared to repeat the injection if necessary. There is no danger whatever in this proceedure; it is simple; it is rapid; and the effects are marvelous.

The physician often loses many valuable minutes in getting ready to introduce water into the tissues—minutes that decide oftentimes the fate of his patient; and it is with the hope that my suggestion may be of value in a time of need, that some poor woman's life may be spared, that some physician's anxiety may be lessened, that I present it for consideration.

THERAPEUTICS.

PROGRESS IN THERAPEUTICS.

THE new U. S. Pharmacopœia, the Seventh Decennial Revision, 1890, was promptly issued in July, and as we write this, thousands of doctors, druggists and dentists are industriously perusing its pages.

It does not become official till January 1, 1894.

This great work, more so than its predecessors, represents an enormous amount of compilation, revision and origination on the part of the committee, and is really a new book in most respects. The U. S. P. of 1890, is as nearly perfect and correct as any work made by human brains and hands can be, and our profound thanks are due those untiring and earnest scientists who have done all this, not for pecuniary reward, but for purely scientific motives.

It is a handsome volume of 660 pages, showing how the desire for completion and thoroughness, has directed the committee in its work, a desire which is happily pervading all branches of the medical sciences in the U. S. just now. It is larger and more handsome than any of its predecessors.

There are two less official drugs and preparations than in the U. S. P. of 1880, 90 of the old drugs having been dropped and 88 new ones added.

The most radical change is the uncompromising adoption of the metric system throughout. The metric system alone is used and the convenient old *Troy* system has forever been discarded. This will cause a great many errors and much confusion, for a time, among "older heads," who will probably swear at these "new fangled European notions." I can see many honest old doctors and pharmacists shrugging their shoulders and uttering strong denunciatory adjectives over this sudden change, but then, we must not forget that "the world do move."

Only three drugs are standardized despite the agitation for the last three years, cinchona, opium and nux vomica.

The nomenclature has not, fortunately, been changed. It remains the same, so in this respect one can feel that one has not grown old.

An appeal was made to the Committe of Revision to adopt the newly proposed spellings and terms. Among those propositions were the spellings: bromin, chlorin, fluorin and iodin, for bromine, chlorine, fluorine and iodine; bromid, chlorid, iodid, oxid, sulphid, etc., for bromide, chloride, iodide, oxide, sulphide, etc.; aconitin, morphin,

quinin, etc., for acontine, morphine, quinine, etc., (thus abolishing the hitherto prevailing distinction in spelling between alkaloids and so-called neutral principles); sulfur, sulfate, etc., for sulphur, sulphate, etc.; glycerol, benzene, etc., for glycerin, benzol, etc. While some of the members, individually, were willing to approve and adopt at least some of these new spellings in their professional writings, the decision, so far as the Pharmacopœia is concerned, was almost unanimously against their adoption at this time, it being deemed unsafe and unnecessary to inaugurate such radical changes, not yet generally accepted or followed in practice, in the names of medicines familiar, under their present garb, to so large a proportion of the population.

The U. S. P. of 1890 has excluded all patent medicines, and rightly so, declaring that they are not worthy of endorsement, whether they are valuable or popular, or not.

Principle 6, of the Pharmacopœia convention of 1890, contains this: "No substance which cannot be produced otherwise than under a patented process, or which is protected by proprietary right, shall be introduced into the Pharmacopœia," and the committee has followed its instructions throughout. If one should criticize anything in the U. S. P. of 1890, one might say that if the committee intended to exclude all preparations which are "patented or manufactured under proprietary rights" it could be charged with inconsistancy in the case of *acetanilid*, *salol*, *chloroform*, *etc.*

Acetanilid was introduced into medicine in 1887 under the name of *antifebrine* more correctly *phenylacetamide*, $C_6 H_5 NH CH_3 CO$, and is still manufactured under patented and copyrighted processes. The same may be said about *salol*, more correctly *phenyl salicylate* $C_6 H_4 \{^{OH}_{COOC_6H_5}$, introduced into medicine in 1886. *Chloroform* is also manufactured under patented processes.

Perhaps but very few know that *chloral hydrate*, *salicylic acid*, *chloroform*, *salol*, *etc.* were at the time of their insertion in the U. S. P. of 1880, made under patented processes, some of which have expired only a few years ago.

These remedies were then admitted by mistake; perhaps the same mistake has been made now. The English, German and some other European Pharmacopœias have admitted many of the "new remedies," however. The U. S. P. of 1890 is, after all, a splendid work, something that must and will do the nation and the profession great credit, and should be perused diligently.—J. F. H.

NOTES.

Soziodol-Zinc in Gonorrhea.—*The University Med. Journal* reports that Czadek, of Keir, notes most happy results in treatment of gonorrhea, from the use

of injections containing 20 grains to 6 ounces of water; it exerts a marked influence in arresting the abundant secretion of the urethra and in subduing high inflammatory action in the acute stage.

Reducin.—A new photographic developer is announced by this name, reducin; ike amidol, it will, without the addition of alkali, develop a picture quickly and forcefully. The solution is prepared by mixing 5 grm. reducin, 50 grm. sodium sulfite, 12 drops sulfuric acid and 1 quart water.

Glycerin Suppositories.—A new, improved formula for making these excellent agents is furnished by Boni. The mass is made of 10 parts glycerin, 5 parts water and 1 to 2 parts gelatin; mold into suppositories, and when firm dip into a mixture of melted cocoa-butter and wax, which gives them a durable coating.

Formanilid.—($C_6 H_5 N H. CHO$) is closely allied to acetanilid, as the chemical formula shows; it has been enthusiastically introduced for therapeutic consideration as antipyretic, analgesic, antineuralgic, hæmostatic and anæsthetic, by a half-dozen Buda Pesth physicians. It is said to combine the properties of acetanilid, antipyrin and cocaine. It occurs in oblong, prism-like crystals, is soluble in water and in alcohol and melts at 114.8° F. The dose is 3 to 10 grains; as an anæsthetic it is used in 20 per cent. solution, the effect lasting three and four times as long as that produced with cocaine, although not as satisfactory. It is not yet commercially obtainable.

Trichloracetic Acid is one of the best caustics for use in rhino-pharyngology, but it is not often mentioned in current literature, and appreciation of its value seems to be limited to a few iniatiated specialists. Dr. Charles N. Cox, in a paper on The Treatment of Atrophic Rhinitis (August, 1893, Brooklyn *Medical Journal*), calls attention to it by quoting Adolph Brouner (*Journal of Laryngology*), who "has found *Trichloracetic Acid*, in from 10 to 15 per cent. solutions, of decided service. After freely cocainizing the mucous membrane, the solution is rubbed into the parts by means of a cotton-armed probe. A snuff consisting of aluminum aceticotartrate, menthol, camphor and boric acid is used subsequently."

Dermatol, applied as dusting powder, will almost instantly relieve the intense pain after cauterizing a wound with nitrate of silver.

CARDIAC MURMURS; HYPERTROPHY WITH DILATATION.

CLINICAL LECTURE DELIVERED AT THE BUFFALO GENERAL HOSPITAL, BY CHARLES CARY, M. D.,

PROFESSOR OF MATERIA MEDICA, THERAPEUTICS, AND CLINICAL MEDICINE, IN THE UNIVERSITY OF BUFFALO, ETC.

THIS patient, a German, age sixty-three, was admitted six days ago. The previous history is negative. He has enjoyed good health till within the past few months. About two months ago, while engaged in his work of tanning hides, he became suddenly dizzy

and had considerable impairment of vision. He has had backache ever since. Two weeks ago an eruption appeared on his legs, and they have at present a shining appearance. Not to describe in detail the examination to which he has been subjected, we find that he has a marked enlargement of the heart, the apex-beat being about four inches below the left nipple, and that there are murmurs at both base and apex. The urinalysis is as follows: "Reaction neutral; s. g. 1028; albumin present; no sugar; no sediment." Albumin was also found at a second examination, when the specific gravity was 1018.

The patient says that he has worked in a tannery for thirty years and, although his occupation is one that necessitates exposure to damp, he has never had rheumatism. His dizziness has never been so great as to cause him to fall. For a year it has been hard for him to go upstairs, and he says, "It kicks here," indicating the epigastrium. This man, therefore, gives a history of having developed very gradually an inability for violent exertion. He had to abandon his work five or six months ago, but it is surprising that he has suffered so little from what we find to be a very advanced and complicated cardiac lesion. Its progress must have been rapid in the last few months.

We will examine the patient more in detail in the ward-class, but I will indicate to you now the cardiac lesions. You will notice that the apex-beat is very low, but in an area two inches in diameter you can see a movement of the chest-wall with each heart-beat. On percussion, I find the heart to be much enlarged. Dulness ceases at the left border of the sternum, but we must remember that unless the heart comes immediately in contact with the chest-wall or with very little intervening lung-tissue, we cannot map out the inner border as well as we can the outer. Dulness extends outward to the mid-axillary line, showing an enormous enlargement of the heart. Upon auscultation I hear double murmurs with both systole and diastole. The heart is pumping too rapidly now to allow me to make these murmurs out clearly, but when the patient is in bed they can be distinctly differentiated as mitral obstructive or direct, mitral regurgitant, aortic obstructive and aortic regurgitant. As a result of these extensive valvular lesions he has a great deal of cardiac enlargement, which is in a measure compensatory hypertrophy; but there is also much dilatation with it, as indicated by the general enfeeblement of the heart-power.

In the lower extremities you will see the evidences of destructive œdema. The patient's legs are not very large now, but when he entered the hospital they were enormously swollen and would pit considerably on pressure, while the skin was so distended that its nutrition was interfered with, so that it has become scaly and thickened. There has been no abdominal dropsy.

I want just to touch upon the plan of treatment in this case. The patient is kept in bed with a twofold object,—first to throw as little work on the heart as possible, and, secondly, to enable the return circulation from the legs to be better carried on and thus to improve the nutrition in them. He was given mild doses of potassium iodide in conjunction with digitalis. The potassium iodide was given as a capillary dilator and also to promote the removal by absorption of the thickening in the lower extremities and theoretically at least, to aid the removal of a portion of the thickening about the cardiac valves. The digitalis was given to spur on the heart and also to increase the renal secretion. There remained no subjective symptoms to treat, for placing the patient in bed removed his dizziness and sense of fatigue. He complains now only of the condition of the feet and legs.

This man's working-days are over; a man of his age is entitled to a life of ease. By giving his heart a rest the dilatation will diminish to some extent. In acute infectious diseases, for example, there is a certain amount of cardiac dilatation which is recovered from during convalescence, and even when the dilatation is due to valvular lesion, rest in bed and improvement of the circulation (and therefore of the nutrition of the heart) will diminish to some extent the physical defect which is permanent. This patient will probably recover sufficiently to leave the hospital, and he may remain in comfort for years if he is able to lead an easy life. At the same time it will not be surprising if he is carried off suddenly by some exacerbation of his trouble. Aneurism, and especially cerebral aneurism, is a not infrequent complication of such cardiac disease, and the possible evil results of cerebral aneurism have been described to you in connection with the first case which was shown you this morning.—*Internat. Med. M., Sept. '93.*

AMERICAN PUBLIC HEALTH ASSOCIATION.

THE twenty-first annual meeting of the association will be held at Chicago, October 9 to 14, 1893, and the Convention with the World's Congress Auxiliary of the World's Columbian Exposition will constitute an International Congress of Public Health.

The American Public Health Association was organized in 1872, by a few public-spirited men who foresaw the need of bringing together in one body the ablest sanitarians in the country, for the purpose of inaugurating measures for the restiction and prevention of contagious and infectious diseases, and for the diffusion of sanitary knowledge among the people. The growth of the Association and the work it has accomplished more than justify its existence. The membership has been augmented from year to year until it now constitutes the largest and the strongest sanitary body

in the world and embraces in territorial extent the United States, the Dominion of Canada, and the Republic of Mexico. Under the impetus given by its work, state and local boards of health and sanitary associations have been organized, sanitary publications increased, and hygienic knowledge widely and extensively diffused. The Association has already published eighteen large and valuable volumes, increasing at the rate of one a year, and containing the papers, reports and discussions presented at the annual meetings. These volumes constitute in themselves a library upon sanitation; they are elegantly printed and bound, and are alone worth more to any person interested in hygiene than the cost of membership. Each member is entitled to the annual volume, delivered free of expense. In addition thereto, the Association has published a standard work upon "Disinfection and Disinfectants," besides the Lomb Prize Essays, now so widely known to the American public.

Among its members may be found physicians, lawyers, ministers, civil and sanitary engineers, health officers, teachers, plumbers, merchants, etc.—in fact, every profession and many of the industries are represented in its list of members. The only qualifications required for membership are a good moral character, an interest in hygiene, and the endorsement of two members of the Association. Cost of membership five dollars a year. For blank applications for membership, or particulars relating to the Association, address the secretary.—*Medical Review.*

AMERICAN NEUROLOGICAL ASSOCIATION.

THE nineteenth annual meeting of this association was held at Long Branch, N. J., July 25, 26, and 27, 1863.

The President's Address was delivered by Dr. Henry M. Lyman, of Chicago. He called attention to the predisposing causes of diseases of the nervous system, and said that the simple recognition of disease is not sufficient; etiologic classification is also necessary. He then dwelt upon the subject of rheumatism affecting the nervous system, the marked forms of which, chiefly affecting sensation, are not so commonly recognized and are frequently ascribed to other causes. They are usually observed in elderly persons of nervous temperament and arthritic diathesis, and differ from many other similar disorders of sensation in being transient, migratory, and of brief duration. Among these ailments is a prickling of the surface of the skin, often universal, but sometimes limited to certain points, where the patient experiences a sudden sharp prick, like a flea-bite. Another disorder of cutaneous sensation oftens affects the scalp, and is occasioned by irritation of the superficial nerves of that region. The duration of the attack rarely exceeds a single day. Closely associated with these disorders are the various transient perversions of sensation that may be felt in the Eustachian tubes, the pharynx, and about the fauces. Another of the symptoms of masked rheumatism is a peculiar and disagreeable feeling in the tongue. This sometimes assumes the severity of a genuine neuralgia, and manifests a greater degree of persistence when associated with obesity, diabetes, or gout than when related to rheumatism alone. The esophagus and fauces and sometimes the muscles of the eyeballs are similarly affected. Often there is a paroxysmal cough, associated with headache. The most distressing of all these forms of pain is gastralgia. The previous history and the concurrence of other rheumatic symptoms of a more stable character will, of course, add greatly to the certainty of the diagnosis.

Dr. Smith Baker, of Utica, read a paper entitled

which he defined as that condition in which the characteristics of ancestry are not blended into a permanent whole. He reported the case of a little girl who presented frequently recurring attacks of functional perversions and distress, which could not be satisfactorily explained except upon the inference that the dissimilar traits noticeable in her grandparents had not been blended in the personality of her mother and so had proved to be the ground field of the grand-child's affection. The question as to the legitimacy of such a view can never be answered intelligently until the commoner facts of family life shall have been more minutely studied. Thus, such trite matters as dreams, somnambulism, the solving of problems unconsciously, or subconsciously, the up-rush of facts and arguments in the act of composition, and the play of genius, should be investigated.

Inquiries in states of acute illness, and the study of moods and transformations of character, etc., all should receive more attention by physicians in order that causation in cases of functional derangement may be the more accurately conceived. In doing this, assistance may be found in many instances of so-called reflex disease. Heterogeneous personality should always be looked for in the neuropathic constitution; but more particularly is this of use in considering the problems presented by neurasthenia and the sexual perversions. Not so frequently, perhaps, is the trouble owing to the commonly assumed overwork, etc., as to the unceasing warfare within between the "lower" impulse and the "higher" determination. Students, professional men, and many others whose physical abnormities or mental peculiarities reveal the sensitive, easily impressed nature, are especially prone to be victims of the uncoalesced personality. Its bearing upon questions of marriage and parentage renders it worthy the attention of all.

Dr. Lyons, of New York, referred to the opposite sides of character as seen among the insane. An educated woman may be agreable and lovable in her normal condition, but vicious when in the abnormal state. The case of a patient was related who would frequently apologize and do her utmost to resist the impulses to do wrong. The opinion was expressed that such behavior might be due to abnormity in the development of the cerebral hemispheres or to some interference with the circulation.

Dr. Parsons, of Sing Sing, expressed the view that the tendency to evil thinking and acting observed in some persons might be overcome by suitable environment. The absence of restraint, after a time, permits of a continuance or permanency of the abnormal condition.

Dr. Hinsdale, of Philadelphia, spoke of two authenticated cases of double-consciousness. He maintained that the medico-legal features of such cases, as well as those of changes in personality, are of special interest and should be reported and carefully analyzed.

Dr. Seguin, of New York, held that atavism is the more rational explanation. Blending of the characteristics of ancestors occurs normally. It is not right to confuse double consciousness of an epileptic nature with conflicts of character and personality.

Dr. J. J. Putnam, of Boston, said that the treatment rested upon the systematic development of character. Hypnotism has taught much in regard to this condition and brings out in a striking manner certain phases of character. He recommended the development of the inhibitory powers.

Dr. F. P. Dercum, of Philadelphia, stated that the case reported by Dr. Baker recalled the fact that there is lower vitality at certain epochs in women. Relationships between states of health might account for the peculiar mental variations.

Dr. Baker referred to the various definitions of personality as not being suffi-

ciently inclusive of the facts to be of accurate use. He urged the importance of the study of the subject, especialy in its bearing not only upon the causation of actual disease, but in its relation to educational ideas and practices as found to-day in our school system. In this way may be found means of obviating detrimental traits, and also of making dominant those more desirable and healthful.

Dr. Matthew D. Field, of New York, read a paper entitled:

Detention Hospitals for the Insane.

After speaking of the wrongs inflicted upon the insane by committing them to county jails and prisons, there to mingle with tramps while awaiting the appointing of physicians to pronounce upon their mental condition, he gave a description of the reception pavilion for the insane at Bellevue Hospital, and the methods of examination and commitment by the city examiners. He declared the pavilion to be in every respect a hospital with resident physicians and competent trained attendants. Though a plain and inexpensive building, it served its purpose very well. He advocated the establishment in all large cities of similar hospitals for the reception of those suspected of lunacy. He said that an ideal institution for this purpose would be a hospital constructed on the pavilion plan for the reception of the insane, inebriate, and neurotic, with a small amphitheatre and sufficient wards for proper classification and detention for a reasonable time. A competent visiting resident, and examining staff of medical officers should be chosen and clinical instruction regularly given. Such a hospital would secure prompt, humane, and scientific treatment. The opportunity for longer observation, securing histories and examinations, would result in more complete and accurate certification. There being no need for hasty transfer to other institutions, the feeble, sick, and certain selected cases could be detained for treatment, and clinical instruction would be easily accessible to the entire medical profession.

[to be continued.]

PHARMACY.

In Charge of WM. E. CATES, Ph. G., Secretary R. I. Pharmaceutical Association.

A WISE CHOICE.

THE American Pharmaceutical Association paid a very high compliment to New England and made a very wise choice when they elected Edgar L. Patch, Ph. G., of Boston, its President for the ensuing year. New England claims Prof. Patch for her own and there is hardly a village in the six states that does not contain a former pupil to whom he is not endeared and who never tire of singing his praises. He was born in Spencer, Mass., December 2, 1851. Up to the age of 13 he attended the public schools of Worcester, then, at his father's death, he was obliged to depend upon his own exertions for his support, and found it a hard experience for a couple of years, until he entered the retail drug store of A. A. Burditt, of Clinton, Mass. After twenty months' service here he went to Boston, securing a position in a drug

store on Cambridge street. In 1870 he entered into partnership with Henry Canning, at 109 Green street, and the firm quickly worked up a prosperous business. Prof. Patch graduated from the Massachusetts College of Pharmacy in 1872 with high honors, and was at once elected a trustee of that institution, and later was found worthy to fill several offices of trust and honor within its gift. He has been its trustee, treasurer, chairman of various committees, and from 1876 to 1892 he filled the chair of professor of pharmacy. Prof. Patch organized the E. L. Patch Company in 1888, and the pharmaceutical and chemical products of the firm, whose offices are in Boston and laboratories at Stoneham, have achieved merited recognition for their high excellence. His resignation from the college, as noted above, was rendered necessary because of the increased demands upon his time, resulting from his fast growing business. Prof. Patch has always been active in pharmaceutical affairs, a great student, a good teacher, and a writer of merit, his many contributions to pharmaceutical journals stamping him as a thoroughly posted chemist in both theory and practice.

We extend our congratulations to Mr. Walter H. Dow who has successfully passed the examination of the State Board of Pharmacy.

†

John M. Maisch, Pharm. D., professor of botany and materia medica in the Philadelphia College of Pharmacy, died at his home in Philadelphia, Sunday morning, September 10th, after a lingering illness of several months' duration.

Prof. Maisch was born in Germany in 1831 and removed to America in 1850. He has been connected with the Philadelphia College of Pharmacy since 1859. In 1864 he was elected permanent secretary of the American Pharmaceutical Association, a position which he held continuously until his death.

He was a member of the Committee on Revision of the United States Pharmacopœia for the fifth, sixth and seventh editions.

At the recent meeting of the American Pharmaceutical Association at Chicago, Prof. Maisch was presented, through Pres. Remington, with the Hanbury gold medal. This is the greatest honor that can be bestowed upon a pharmacist, and is a fitting recognition of his great services to pharmacy.

Prof. Maisch was a man of great personal magnetism and his towering form was one of the most conspicuous at the A. P. A. meetings.

The sympathy of the entire fraternity of pharmacists is extended to the bereaved widow and children in this their great hour of affliction.

The R. I. Medical Science Monthly,

J. FREDERICK HALLER, A. B., M. D.,

MANAGING EDITOR,

To whom all communications to this Jounal of any nature whatsoever, whether Letters, Exchanges, Books or Pamphlets for Review, or anything intended for the Editorial or Business Department should be addressed.

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Books and monographs, native and foreign, on any of the Medical Sciences, will be reviewed without fail, according to their merits and the space at disposal.

Alterations in the proof involving an excessive amount of work, will be charged to authors at the rate of 60 cents an hour.

Contributors desiring Reprints or Extra Copies of the Monthly can obtain them at reasonable rates by application immediately upon the acceptance of the article.

"The local journal should be first and uppermost in every doctor's affections, and should have his good will and generous support.

"Contributions to its pages should be made often and brief; but it shoud be the bounden duty of every one to at least once a year make his offering in this channel.

"The subscription price of the local journal should never be allowed to run over, for there is never a time when the local journalist is not doing more for his profession than it is doing for him. The large weeklies should occupy the second position."—*Dr. J. C. Culbertson at Milwaukee, June, 1893.*

EDITORIAL.

WE are happy to inscribe on our editorial staff the names of Dr. Gleason, of Philadelphia, and Dr. Milliken, of New York. The former is a well-known and rising writer and specialist, and the latter enjoys a well-earned reputation as a writer and instructor in the *N. Y. Polyclinic.*

We congratulate the Monthly and its readers upon these valuable additions.

The recent meeting of the R. I. Medical Society, a report of which is found elsewhere in the Monthly, was one of the most interesting September meetings we have had for years. Physicians are just beginning to return from their various summer outings about this time, and it is very difficult to obtain any papers, or get any one to discuss them, or very many together to listen to them.

Shall we say that the remarkable success of this meeting is due to the untiring efforts of the president and officers, or to a general progressive move along the line? We think it due to both.

Rhode Island, as well as her sister state Massachusetts, has no laws whatever, regulating the practice of medicine, while little Switzerland and all other countries have very strict laws. No American physician, no matter how eminent, can practice medicine in Europe, not even prescribe for his own family while traveling there; nay, not even buy a medicine at a drug store, termed poisonous. But the gates of our seaports swing open wide to all Europeans who wish to practice in this country, and besides this, any horse-jockey who chooses to do so, can put up his sign anywhere in the New England states and practice medicine. We have already doctors enough, and more are coming out every year, and many foreign doctors are settling among us, making the struggle for independent existence more and more difficult. And in the meantime the quack gets in his disreputable work of killing off people, either quickly or slowly, and our law-makers and many of the doctors are closing their eyes, we are sorry to say, to the existing evil and injustice.

The recent Pan-American Medical Congress at Washington, marks an era of closer union between North and South American countries which is pleasing.

The South American doctors seemed very enthusiastic over their warm and cordial reception everywhere, and will carry home with them the best of impressions of the U. S. and its medical profession.

What possibilities there are for extended commercial and professional relations with our neighbors in the south! What delightful trips we can have in the future attending their medical society meetings if we could only speak Spanish or Portuguese!

†

As we go to press the sad news reaches us that two distinguished members of the medical profession of Rhode Island have passed away, Drs. Hutchinson and Carpenter. We will speak of their lives and labors in our next issue, and extend our sincerest sympathy to their bereaved families and friends.

OUR CORNER.

This is what the *Medical Standard* of Chicago, for September, has to say about one of our neighbors.

"The *Boston Medical and Surgical Journal* seems to be an organ of the quacks who now rule Massachusetts, to judge from an editorial anent the Pennsylvania medical practice act which it terms 'a bill to perpetuate medical sects. Hereafter, all who enter upon the practice of medicine in that State must belong to one of the three sects, allopathic, eclectic, or homœopathic. In the community and by the courts every regular physician will be known by his sectarian name.' It is of the opinion that medical science should be free from restrictions, leaving the courts open for the punishment of those who commit malpractice or extort money under false pretenses. The term 'allopathic' does not appear in the Pennsylvania act, hence the *Journal* is guilty of either indefensible ignorance or deliberate mendacity. Massachusetts is just now the paradise of quacks because of the policy advocated by the *Journal*."

And yet, how it tickles the fancy of some to send their literary productions to this journal; but then, it is out of town, don't you know?

I am afraid Wile, (of the *N. E. Medical Monthly*,) has gone back on his record,—he used to speak out in defense of legitimate medicine.—*Texas Medical Journal.*

FUN, FORTUNE AND FORMULÆ.

Lister's Renewed Allegiance to Carbolic Acid.—It is not surprising to those who have kept pace with the progress of Antiseptics to hear Sir Joseph Lister, after twenty years of investigation and experiment, declare his renewed allegiance to Carbolic Acid, as he did in a lecture January, 1893, at Kings College Hospital in London (*Annals of Surgery*, June 1893.)

Carbolic Acid is not only a more efficient surgical germicide than corrosive sublimate, but it is much more efficient in cleansing the skin. It has a powerful affinity for the epidermis, penetrating deeply into its substances and it mingles with fatty materials in any proportion. Corrosive sublimate, on the other hand, cannot penetrate in the slightest degree into anything greasy; whence those who use it require elaborate precautions in the way of cleansing the skin. All of this is unnecessary with carbolic lotion. Sir Joseph does not even use soap and water, trusting entirely to the Carbolic Acid.

There is a new product of Phenol and Boracic Acid, in which has been mitigated the pungency of Carbolic Acid, disguising its odor, and greatly supplemented its efficiency by its combination with Boracic Acid, which, although admitedly slower in its action, is nevertheless, unsurpassed as a true germicide.

For Headache.—

℞ Antipyrine, ... ℈i.
Neurosine, ... ʒ ii.—M.

Sig. Dessertspoonful as indicated.

For Chlorosis.—

℞ Ferri et quin. amon. cit., . ℥ ss.
Dioviburnia, ... ℥ viii.—M.

Sig. Teaspoonful three to four times a day.

The Providence Cycle Co.—Mr. Edward A. Godding, the pushing manager of this firm, has recently startled the Providence public by opening up one of the finest stores in the cycle line. Any one interested in cycling (and most people are now-a-days, particularly physicians), will find the greatest and choicest assortment of anything in "cycles," at 124 Mathewson street.

We congratulate Mr. Godding and the public upon this new enterprise and commend the Providence Cycle Co. most emphatically to lovers of this sport.

Sennine.—The advertisement of "The New American Antiseptic," appearing for the first time in this issue. A product of Phenol and Boracic Acid, the two best germicides known—in powder form (2 oz. tin boxes with inner top perforated convenient in applying on the surface) and readily soluble, five parts of Sennine dissolved in 100 parts of water. Comparatively inexpensive, non-poisonous and free from disgusting odor, safe internally as well as externally, thus promising much in general medicine as well as in surgery. We bespeak an early trial of Sennine by our patrons. Free sample sent upon application to the Dios Chemical Co., St. Louis, Mo.

Dr. Carl Kohler, of Vienna (now at 32 East 60th street, New York) through whose discovery cocaine was first introduced into medicine in 1884, says:

"I have used 'muriate of cocaine, Boehringer' for some time in my practice and have achieved entirely satisfactory results through its physiological action. I found it to be a chemically pure preparation and have never observed any foreign and deleterious effects in its use."

Nature's Anti-Fat Remedy. Phytoline (Walker).—We cannot give the philosophy of its action, but the clinical reports indicate that it is a drug capable of accomplishing what is claimed for it. Extract from "Food."

PRIZE FOR COMPETITION.

The William F. Jenks Memorial Prize.—The third triennial prize, of five hundred dollars, under the deed of trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on "infant mortality during labor, and its prevention."

The conditions annexed by the founder of this prize are, that the "prize or award must always be for some subject connected with obstetrics, or the diseases of women, or the diseases of children;" and that "the trustees, under this deed for the time being, can, in their discretion, publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may, in their judgment, be sufficient for that purpose, and the essay or paper be considered by them worthy of publication. If published, the distribution of said essay shall be entirely under the control of said trustees. In case they do not publish the said essay on paper, it shall be the property of the College of Physicians of Philadelphia."

The prize is open for competition to the whole world, but the essay must be the production of a single person.

The essay, which must be written in the English language, or if in a foreign language, accompanied by an English translation, should be sent to the College of Physicians of Philadelphia, Pennsylvania, U. S. A., before January 1, 1895, addressed to Horace Y. Evans, M. D., Chairman of the William F. Jenks Prize Committee.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The committee reserves the right not to make an award if no essay submitted is considered worthy of the prize. James V. Ingham, Secretary of the Trustees.

NEW BOOKS.

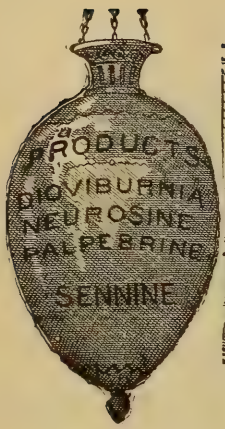
A New Medical Directory.—A complete new medical dictionary is announced for early publication by Lea Brothers & Co. The author, Alexander Duane, of New York, is already widely known as the medical expert for Webster's International Dictionary. His new work has been drafted to supply medical students with all desired information concerning the words they will meet in their course of reading, and as the vocabulary has been selected most liberally, the work will be of value to practitioners also. The pronunciation of each word is given by a simple and obvious phonetic spelling; then follows the derivation, an unexcelled aid to memory, and finally a full definition. Descriptive matter has been appended to such words as cannot be adequately explained by simple definition. Thus diseases are described, and their symptoms and treatment are given; drugs are followed by their properties, effects, doses, etc. Extensive tables of bacteria, doses, etc., are placed in the alphabet most conveniently for reference. A work of real value is promised, and we shall take an early opportunity of reviewing it in these columns.—*Maryland Medical Journal.*

The Era Key to the U. S. P.—This book gives in a very condensed form all the vital information regarding the drugs and preparations of the new Pharmacopœia as follows:—

1. A complete *list* of all drugs and preparations in the new U. S. P.
2. The common *names* and *synonyms* of each drug and preparation.
3. The *parts* employed.
4. The *doses* in both Apothecaries and Metric Systems.
5. The *preparations* in which the drug is employed.

Particular attention has been paid to the typographical arrangement of the matter. The official names are arranged alphabetically in black faced type, and no less than six styles of type are used in its composition so as to bring out in marked contrast the important features. The book is in vest pocket size, and certainly of great assistance to physicians in writing prescriptions, and to pharmacists in dispensing the same.

The Era Key was compiled by *The Pharmaceutical Era*, published by D. O. Haynes & Co, Detroit, Mich. and the price only 25 cents per copy, postpaid.



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A MONTHLY REVIEW OF REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

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MEDICAL FINANCES.

READ BEFORE THE HENNEPIN COUNTY MEDICAL SOCIETY, MAY 1, 1893, BY FRANK ALLPORT, M D., PROFESSOR OF CLINICAL OPHTHALMOLOGY AND OTOLOGY IN THE UNIVERSITY OF MINNESOTA.

WHEN I was requested by our President to prepare a paper for this Society, I accepted with many misgivings, for the writings of oculists, aurists and laryngologists, are usually submitted to empty benches, although often prepared with much labor and expenditure of the "midnight oil."

The announcement that a specialist in one of these branches is upon the point of reading a paper, is sufficient to make the members of a medical society scatter to the four winds of heaven and render it exceedingly difficult to produce a quorum at a meeting. Those who are charitable enough to come, are usually the especial friends of the writer, who dislike to hurt his feelings by staying away.

Another discouraging feature in this connection is the barrenness of the discussion after a carefully prepared address. The specialist seems to be regarded as invincible as one of the old Vikings, whose edicts none dared to question, and after the paper is read, and the members duly awakened from their troubled sleep, some kind-hearted soul slowly and deferentially rises and goes through the old stereotyped formula that is something like this: "We have all listened, with much satisfaction, to the exceedingly able and well-prepared paper of Dr. Blank, and I am sure the members present will echo my sentiments when I say that he has left nothing unsaid, in fact he has covered the ground so thoroughly that there is really nothing to be said upon the subject, and I move you, Mr. Chairman, that the Society tender him a vote of thanks, and that the paper be handed to the publication committee for submission to the profession." This motion being duly passed, the

Society breathes a profound sigh of relief, and being too exhausted to transact any further business, the meeting adjourns.

This, brethren in the profession, is one of the thorny paths that the specialist has to travel. He is not appreciated enough or is appreciated too much. I have not been able to discover which.

So I determined *not* to say anything to you this evening on the subject of "Ophthalmia Neonatorum" or "Headaches produced from Eye Strain," or any of the other thread-bare old topics that are popularly supposed to be of especial interest to the general practitioner, as condescendingly and primitively expounded by the oculist once or twice in a season. I thought I would for a brief space of time descend from the high pedestal upon which the specialist is presumed to stand, like Cæsar on a monument, and talk about something that interests us all, viz., money. Rich or poor, family physician or specialist, this subject inspires in us all an enthusiasm that leaves no room for drowsiness or the passing of stupid resolutions and insures a discussion that may last far into the night and then be left in an unfinished condition. But before plunging into the merits of the subject, I wish to say something that I am sure will be endorsed by every one here present, viz., no physician can practice medicine to his best ability who does not make money occupy a place in his mind and heart secondary to the well-fare of his patient.

There are men, under the cognomen of physicians, who take a sort of financial estimate of a patient's condition the moment he enters the office, and while making inquiries about the health of the applicant, are really feeling his monetary pulse to ascertain how much he can be robbed before the clutches of this medical octopus will be relaxed.

Such representatives of our profession I believe to be rare, and of course they do not exist in this section of the country at all. But there are many physicians in all lands who mean to be thoroughly honest both to themselves and their clientele, who are struggling under a burden of debt, and who really have much difficulty in providing the necessities of life for themselves and family, who under such a pressure of unfortunate circumstances find it difficult to maintain a front of strict integrity.

The fees of the medical man are capable of such extreme elasticity that it is very easy to stretch them to their limit and more in cases where such wide expansion is possible. There is something weird and indefinite about a doctor's charges, and when his office and house rent come due, and the other bills are fast accumulating, and he sees his little brood at home without those comforts that it would delight him to provide for them, his heart sinks within him and he feels the way of the medical man is hard indeed. If, at this opportune moment, a well-to-

do patient presents himself for operation, who can find it in his heart to blame him if he regards the applicant as a heaven-sent boon whom it would be almost criminal to turn aside, and not use to the best advantage. He thinks of the long line of dead-beat patients who live in comfort while he is in want, and feels with some show of reason that he now has an opportunity to even things up to some slight extent. And yet, brethren, we all know that this is not right, and that no man should be required to perform a vicarious function when he pays a bill.

Now, what is the trouble? Why are medical men so poor as a class? Why do they accumulate so many bad accounts? Why is their business so largely a credit business? Why do they pay their bills so slowly themselves? These are all questions that naturally present themselves in this connection, and that can be answered in general with a very few words, viz., because doctors are poor business men, and the profession is overcrowded, necessitating an immense strife for work. This is the gist of the matter boiled down to a few words. Look at a class in the average medical college, and while we must admit that the character of such institutions and its students has immensely improved within the last few years, we cannot deny that the students have not the same animated, business-like appearance that young men have who are preparing to enter upon some sort of commercial life. This, I presume, is but natural of a professional and studious rather than of a commercial turn of mind. Another important fact is that medical students are, as a rule, young, and have but rarely been engaged in a business career of any nature whatsoever before commencing the study of medicine, and consequently have not even a rudimentary knowledge of business. I know that as for myself, before I commenced practising medicine I had never written a check or made out a note, although I have struggled under many of the latter since. I did not know how to keep books, and knew nothing whatever about equities, mortgages, or business affairs of any kind. I was a complete nonenity in such matters, and this lack of preliminary business training has always been a material hindrance to me in prosecuting my profession to advantage, and has often been of considerable loss to me financially.

Another source of difficulty in this matter is the character of young people who are allowed to study medicine. A man who proposes to enter upon this serious life work should be a man who has gone through with a good preliminary mental training. And yet it is a notorious fact that such is not the case. Preliminary examinations before entering a medical college are in my humble opinion, a delusion and a snare. The standard is high, and reads well in the annual announcements, but any man who has faced medical classes as I have for ten years, knows to a dead moral certainty that a majority of the members of the class cannot

fulfil the entrance requirements, and when the examination papers are read with their illiteracy and bad spelling, you can make no reasonable man believe that the author of the paper has had a good common school education, or that he is proficient in Latin or Greek.

No, brothers in practice, the foundation is wrong, and who can wonder at a deficient superstructure.

These then, are some of the initial reasons why medical men are not successful business men:

First. They are usually of a studious rather than of a business turn of mind.

Second. They have had no business training before entering upon their medical studies.

Third. Their preliminary training has often been deficient.

Now, when they commence the actual practice, they have many more difficulties to encounter.

The intelligent public mind views with contempt the ease with which a medical diploma can be obtained, especially in this country. The sudden transformation of an ignoramus into a member of the noblest of professions, is little less than appalling. It almost equals the facility with which double-dyed, loathsome, criminal European emigrants become, under the soothing influence of Tammany Hall, voters, and may I say it, Democrats, before they have been in this country six months. It naturally inspires an intelligent member of the laity with grim distrust to witness this emergence of a man from ordinary mortal existence to the medical profession, oftentimes without even a proper hospital training.

The natural result is to cheapen in the mind of the unprejudiced observer the services of a young physician, and he feels he is bestowing a favor upon him to allow him to treat at all, and that the services are worth little or nothing. Can we gainsay that this is a natural conclusion, especially when we reflect that the young doctor, if he is honest to his own personality, probably feels much the same way himself?

It is now that he realizes the over-crowded condition of the medical profession, with the natural and unseemingly struggle for business. It is now that he views with many a heartache the numerous dispensaries and charitable institutions that are conducted with but little regard for the poverty of the patients, or the fact that they are in many instances actually taking the bread from the mouth of the struggling young physician.

This state of affairs can have but one result, viz., to make the new aspirant shut his teeth and determine to acquire patients at all hazards. It matters but little who they are, or what they are; whether they pay their bills or are notorious dead-beats; and after they are secured as

patients, the physician will suffer many a pang of hardship before he dares to insinuate the desire for money, lest he lose the little circle of clients he has managed to acquire.

This again cheapens his services in the minds of the laity, when they view the anxiety of the young doctor to get patients, and the terror that possesses him when he presents his honest bill. And this impression is intensified when they see the ridiculously low amount of the bill, which is all the doctor has had the courage to charge. Or if, perchance, owing to pressing necessities he has made a full charge or an overcharge, the patient repudiates the whole matter, and regards the unfortunate physician as an outlaw and an assassin.

This brings us to the consideration of the size of a doctor's bill. We should be able to tread upon some medium ground between the bold-faced robber, who measures his bill according to the financial stature of a patient, and the timorous physician, who presents a statement so low as to be positively ridiculous. The one sinks the level of the profession to that of the confidence man, while the other detracts from the dignity of his calling and lessens its importance in the mind of the public.

The fee-bill is popularly supposed to exercise some mystical influence over a doctor's bill, but in reality we all know that it amounts to nothing. It is simply a hollow formula to protect doctors against the accusation of overcharging when accounts are submitted in court. Of what possible advantage is a fee-bill that gives a man a latitude ranging from one hundred to five hundred dollars, for instance in the performance of an operation. Such an expansibility is laughable, and means positively nothing. Suppose you went to a store to buy a suit of clothes, and the merchant should tell you that he would charge you from twenty-five to one hundred dollars for it, in accordance with your ability to pay. Such a remark would be capable of but one construction. I do not wish to be understood as desiring to place our beloved profession on a level with that of trade, but we should have fixed prices for our works and abide by these prices. I mean reasonable, fixed, maximum prices, that we should never exceed no matter how wealthy may be the condition of the patient. Such prices, as I say, should be reasonable, fair and equitable and should be such as would appeal to the judgment of most reasonable men if subjected to criticism and inspection. This need not prevent us from exercising all the charity or forbearance we may desire in dealing with our patients. If the client is a poor man struggling under adverse circumstances, we can unquestionably reduce our bill to suit his necessities, even doing away with it entirely if it is deemed expedient. But the account should in all cases be made out in accordance with its full capacity, and deductions made therefrom as we desire. This places us in a correct attitude with our patients. It does not cheapen our labor

but rather, exalts our charity. This may all seem like a distinction without a difference, but to me there is a vast difference between sliding your fee down to meet the wants of your patient, and sliding it up to measure his wealth.

Another method of upholding ourselves, our profession and our charges in the mind of the laity, is by never allowing ourselves to criticise or make fun of the bill of brother practitioner, or to so far commercialize the character of the profession as to enter into a financial competition with another physician to obtain control of a case. Unfriendly criticism of one another's charges is not infrequent among doctors. Such criticisms, I think, are especially directed towards specialists by general practitioners. The general impression of a successful specialist entertained by the laity and profession at large, is that of a cold-blooded, stony-hearted and rapacious monster, who condescends to stay in his office a few hours a day for the purpose of bilking the unsophisticated public of all their loose money, and taking a mortgage on all their effects for the balance. He is supposed to eat and drink money by the bushel, and to spend most of his spare time in a fruitless effort to count his untold wealth. He is believed never to have any pity for widows and orphans, but to treat them one and all alike, and to have no compunctions whatever against carrying his greed and rapacity to any extent that may insure his getting the last dollar in sight. At odd intervals he is believed to jump upon the unsuspecting country practitioner whenever he can find him in the city, and immediately proceed to show his friendliness by getting the aforesaid C. P. as drunk as possible, in order that he may have an exalted idea of the extreme kindness and disinterestedness of the specialist. Such are a few of the favorite methods of regarding the much abused specialist. And the fact that this idea is becoming prevalent among the laity, and fostered oftentimes by the general practitioner, makes the bed of a specialist not always one of roses. Be merciful to him, fellow physicians, and remember that although he *is* rich, powerful and cruel, he may still have some feelings left, and be susceptible of the same emotions that are kindled in your own breasts. And then remember, that you may all become specialists yourselves, and will then understand what I have ventured to say in their behalf.

One very unfortunate habit among physicians is poor and unsystematic book-keeping. Doctors seem to think that any kind of book-keeping will do for them. I know a medical man in this city who for a long time kept his books in a fashion unique in character, and known only to himself. He did not know the names of most of his patients, and so entered them in his books according to predominating features. For instance: "Big Nose;" "Big Feet;" "Small Waist," etc. Imagine bringing a set of books like these into court.

Then there are various systems of book-keeping that are designed especially for doctors, and are so bad that nobody but a doctor would use them. They are a sort of "vest pocket" or "multum in parvo" edition, and are supposed to contain a very large amount of business in a very small amount of space. You have all seen these hyeroglyphics and you know what I mean, but perhaps you do not realize that such book-keeping would not be recognized in any court in this country, were you compelled to produce it. Books must be kept in such a manner that not only yourself but any juryman can understand them without an explanatory key, in order to be regarded as competent evidence. Each item must appear in plain English, and must specifically state the date, who it is against and what it is for. The courts do not give doctor's bills any preference in a justice room, and your accounts will have to stand or fall by the same standard prescribed for a dry goods or grocer's statement. Our accounts should be itemized when sent to a patient, that he may understand just what he is paying for, and not attempt to cover up our shiftlessness and inaccuracy under one general charge unless some such arrangement has been agreed upon between physician and patient. In this way our accounts will appear more business-like and inspire a degree of respect that can be obtained in no other way.

A physician should do as nearly as possible a strictly cash business. This is easier to do than one would imagine who has always abided by the credit system. No business is more dignified than ours, and none should be paid more promptly, and yet a groveling servility about money matters has characterized our profession for years that has permitted an inborn feeling on the part of the laity that a doctor is afraid to present his bill, and that at any rate it will not be presented till long after the services are rendered and that then it can be paid when he sees fit, and repudiated entirely if deemed expedient.

I appeal to you is not this so, and are we not to blame for it ourselves? This same feeling would grow up in our minds if we saw another business carried on in the same shiftless manner as the profession we represent. Suppose for instance, that a stranger should walk into a dry-goods store, select ten yards of silk, and quietly tuck it away under his arm and attempt to walk out of the store without paying for it. What would you call such an action? Stealing! That is right and many of our patients do this. What would you call the merchant who would composedly see this done and say nothing? A fool? That is right. That is what *we* are oftentimes.

There is no reason why our business should not be run on the same general principles that govern the condition of other vocations. Merchants do not trust people they do not know, neither should we. It is

very easy to remind people of their shortcomings in this direction after you become somewhat accustomed to it. Such business principles will soon be noised about, and after a while people will expect to pay you when they consult you. If strangers or people of poor credit attempt to impose upon you in this way, no sense of delicacy nor fear of consequences should induce us to fail in requesting a settlement before further business is transacted. Be assured, you will very rarely loose a desirable patient by this proceedure; on the contrary, if your reasons for not extending credit are couched in courteous language and a reasonable explanation given, you will dignify yourself in the mind of the applicant, and he will feel that your services are really worth something. A deadbeat will often pay a man of his calibre while he laughs with scorn at some other man he has confidenced. Try this way of doing, and I am sure it will net you more per annum than the other way.

Of course you will have to trust some people, but be honest with yourself in only trusting those you conscientiously believe to be worthy of credit. You will sometimes be mistaken in a man, as all business men are, even the most strict. But, if you are thorough, and in earnest in the matter, you will find your poor accounts lessening year by year, and your cash columns steadily growing. This brings us to the consideration of another matter, viz., prompt presentation of bills. This is a big subject but can be condensed in a few paragraphs.

Here again I ask, why should the practice of medicine be conducted upon any other lines than those set down for the governing of all other kinds of business? When do you get your meat bill, your dry-goods bill, your other bills? Once a month, at least. Then why should you not present your bills with the same regularity? Is there any reason why you should pay Mr. Jones, the dry-goods merchant, the first of every month, and yet his bill with you for services rendered should only be paid once a year? Doctors must live, and lamentable as it is, they *must* pay their bill. Then why should people expect a doctor's bill to run on indefinitely? Why should people pay all their bills before they pay their medical adviser? The answer is easy. They have been educated that way. By whom, ask you. Why, by the doctor himself to be sure! If doctors, as a class, would do business from a different stand-point, what a rattling of old bones would there be. How many surprised people would be observed, and how much more comfortable would be the doctor's life.

Do not trust people at all unless you believe them to be all right. Trust as few as you can of those people who *are* all right. Never grandiloquently tell people to "let their bill run." Never refuse a dollar. Take it while you can. You may never see it again.

What accounts you have on your books, present them promptly on

the first of the month in good tangible shape, and let people know that you expect them to be paid.

Bills should be presented regularly whether the patient is under treatment or not. Do not you get your bills regularly whether you are still trading at a store or not? Of course you do. Then why not present yours on the same principle? I would not advise you to go into a bedroom where your patient lies dying, when this melancholy event is transpiring on the first of the month, and tell him to pay your bill before he dies. But there can be no objection to presenting a bill from month to month while the patient is under treatment, especially if he be suffering from a chronic disease. A physician's own inherent sense of delicacy and refinement will dictate to him what to do in acute sicknesses, but he should not allow a false sense of sentimentality to stand in the way of looking out for his own reasonable security.

A doctor will trust people longer and more foolishly than any man on earth. He will go on trusting people for years, until they leave him on account of hating him because they have owed him so much and so long. Then they will go to another physician and pay him, with little or no hesitancy. The trouble is with you, my brother. If you find a man who does not show a disposition to treat you squarely, drop him. By so doing you will perhaps induce him to pay you, or your neighbor physician, and you will certainly inspire in his mind a profound respect for yourself, and the medical profession in general.

It is not necessary for me to remind you how hard it is to pay for "dead horses." Do you remember the old sonnet:

> "Three faces wears the doctor—
> An angel's when sought,
> And a God's the cure half wrought;
> But when the cure complete, he seeks his fee,
> The devil looks less terrible than he."

How true this is. The time to collect a bill is on the spot if possible; but if credit be extended, see that the patient pays you when the services rendered are fresh in his mind. The longer the time is extended, the smaller will grow the services and the larger will grow the dollars, till finally the former will no longer be seen, and the debt will be wiped out by lapse of time. You should never forget how quickly the wheel of fortune goes round, especially in this western country. A man may be in easy circumstances, or even affluent to-day, and willing, nay anxious, to pay his bills. To-morrow he may be poor and unable to liquidate, no matter how much he may wish to do so. Ergo, collect always, as promptly as possible. Do not think from what I have said that I counsel medical men to be the oppressors of the poor, or unwilling to throw the broadest charity into his sacred calling. God forbid! Let a physician

be as charitable as he likes, but let it be given *as* charity, and let him provide comfortably for himself and his home, where the truest charity begins. I would respect a man who, being rich, should see fit to adopt the medical profession as a means of bestowing charitable medical services upon the suffering poor, but I would regard a man as foolish who would run his business in a loose and shiftless manner, and allow himself to be beaten from pillar to post by every worthless imposter that crossed his pathway.

In closing, let me remind you of a fact that many of you understand without any remarks from me. Mental anxiety is worse than physical fatigue. A physician should have a clear brain and a light heart to give the patient the benefit of wise council and an inspiring presence. How can he possess these essentials when his mind is burdened with debt? Many a physician does a good business that, properly managed, would render him free from need, and yet he may be in real distress for want of money, while he endeavors to minister to the wants of a patient who could pay him if he would, but who will not make the effort.

You owe it to yourselves, to your patients, to the profession to start out from this very hour and arrange your business so that it will render you an adequate return for the work you put into it. By so doing you will dignify yourselves and the profession, and bestow a real service upon mankind in general, and yourselves in particular.—*Northwestern Lancet.*

ANTHROPOMETRICAL DESCRIPTIONS.

A NEW METHOD OF DETERMINING INDIVIDUAL IDENTITY.

A. BERTILLON.

THE subject we are about to consider is a method by which habitual criminals, giving a false name, etc., may be identified. This method is based on a system of anthropometrical descriptions, that is to say, the indications depend essentially on a knowledge of the lengths, etc., of certain bony parts of the human frame, such as the length and width of the head, the height, the length of the middle finger, of the individual examined, as ascertained by actual measurement.

We do not allude to the usual description which generally accompanies judicial records: "Chin round, face oval, eyes grey, etc.," which have never led to the recognition of criminals, save in the realms of romance. A trained anthropologist alone would be able to deal suitably with these descriptions.

Photographs are certainly preferable to descriptions of any kind; but photography solves only a part of our problem. In Paris, in the course of ten years, the police had made a collection of the photographs of 100,000 persons; but it was clearly impossible to search through all these, whenever an arrest was made. The use of photography, therefore, has not rendered the services anticipated.

The adoption of the anthropometrical system of descriptions has entirely altered the figures. In Paris alone, on an average, about twenty recognitions per month were formerly made, from photographs; whereas, by the new system, about forty per month are recognized.

A great number of criminals have given up changing their names, because they have found it useless as a means of concealing their identity.

We will now explain the mechanism of our system.

As already stated, the anthropometrical description consists—for each subject examined—of the length of various body substances, always the same and taken in a regular order. These are, specially, the height, the length and breadth of the head, the length of the foot, of the middle finger, etc.

To illustrate our system, we will suppose that these measurements have been noted on the 100,000 photographs collected in Paris during the last ten years, and that it is with the classification of this collection that we have now to deal.

We shall see, later, how we may dispense altogether with photographs.

The 100,000 photographs will first be divided according to sex—the men on one side, the women on the other. The latter, far less numerous than the former, will not amount to 20,000—in addition, we have 20,000 children, who have a class to themselves.

We will suppose that we have divided the remaining group, of 60,000 men, into three classes, according to their height, thus:—

Of short men, about	20,000 photographs.
Men of medium height, about	20,000 "
Tall men, about	20,000 "

That these three classes may be approximately equal, it is evident that the limits of the class of men of medium height must be restricted more than those of the other two classes, and must comprise only those whose height ranges from 5 ft. 4 in.* to 5 ft. 6 in. inclusive; whereas

*For the convenience of English readers, M. Bertillon's measurements in centimetres =0·39371 in., and millimetres =0.03937 in., have been converted into feet and inches. Students of the subject may be referred to M. Bertillon's work, "Identification Anthropometrique, &c.," Paris, 1893.

the class of tall men should comprise those exceeding 5 ft. 6 in.; and the class of short men, those of less than 5 ft. 4 in.

Each of these primary divisions should again be divided (without further regard to height) into three classes, according to the length of the head of each individual. Each of these new sub-divisions (amounting to nine) will therefore contain:—

Short heads, about . . . . . 6,000 photographs (or more.)
Medium length, about . . . . . 6,000 " "
Long heads, about . . . . . 6,000 " "

These classes will again be sub-divided into three divisions each, according to the width of the head, and the new sub-divisions (twenty seven in number) will contain in each:—

Narrow heads, about . . . . . 2,000 photographs (or more.)
Medium width, about . . . . . 2,000 " "
Wide heads, about . . . . . 2,000 " "

Experience has shown that the breadth of the head varies independently of its length.

The length of the middle finger will give us a fourth and still more precise indication, whereby every packet of photographs will again be divided into three, reducing the number of photographs in each new sub-division to six hundred.

The triple division may further be continued, according to the length of the foot, and the length of the arms outstretched at right angles to the body on each side. Further sub-division (into seven classes) may also be made according to the color of the eyes.

The division according to the length of the foot will
give a quotient of 200
(the number of photographs in each packet.)
This will be reduced, according to the length of the
arms, to about 66
And further, according to the color of the eyes, to about 9

Thus, by the aid of five new anthropometrical co-efficients—as the sex, age, height, and color of the eyes have been made use of from the earliest days—we have been enabled to divide our collection of 100,000 photographs into groups of about ten each, which we can now easily and rapidly examine.

Taking the case of a man in custody who refuses to give his name—we have to ascertain whether he has already been measured or photographed.

The first step will be to take the accurate measurement of his height, as well as of the other anthropometrical features, and note the color of his eyes.

Then, from his height we shall see in which series of drawers we are to look for his portrait. The length of his head will give us a still

more direct indication; and finally, in regular sequence, the other co-efficients—width of head, length of finger, length of foot, length of arms outstretched—and the color of his eyes, will bring us to the exact packet where his photograph should be.

It may be said, however, that difficulties may arise in the case of a man whose measurement may exactly coincide with the limit of one of the classes; as, for instance, that of a man whose height is 5ft. 6in. Presumably, his photograph would be placed in the class of tall men, *i. e.*, from 5ft. 6in. upwards. It might happen, however, that the same man, when measured some years afterwards, might be found to measure only 5ft. 5·4in.—his height being reduced 0·6in. by the effects of age. You would then search for him, not in the class of tall men, among whom he had originally been placed, but among those of medium height, in accordance with his present height.

In this case, and indeed in all cases where a measurement approaches near enough to the limits of a class to cause risk of subsequent error, it would be necessary that search should be made in each of the adjoining divisions.

The operation of taking the measurements is simple, and quickly accomplished, requiring only from two to three minutes, and the intelligence of an ordinary constable.

I.—*The Height.*

This is taken in the usual manner, but a little more accurately. It is absolutely necessary that the subject should be barefooted and placed with his back against a wall.

II.—*Length of Head.*

The subject being seated on a stool, one point of the compasses is placed in the hollow above the bridge of the nose; while the other point is used to find out the greatest length to the back of the head. By means of a screw the opening in the compasses is fixed at that length; and, as a check, the operation is repeated.

The instrument is so accurate that, if a mistake of one millimetre (=·039 in.) too little has been made on the first measurement, the points will not pass; or if, on the contrary, the opening of the compasses is too large by only one millimetre, the points will not touch the skin of the head.

Experience has shown that the length of the head, in different individuals, differs more than 3 centimetres (=1·18 in.). It is admitted that we have no power to alter this measurement; and that there is little or no development in the skull, after the age of twenty years has been attained.

With our stature it is different; for, as years pass by, we become bent, and our stature diminishes. Moreover, in respect of height, it is possible to deceive the operator to the extent of rather more than $\frac{3}{4}$in., without its being discovered. Further, also the differences in height between different individuals do not commonly vary more than about 30 centimetres, or rather less than 12 in.

If, therefore, we admit that we cannot measure the height more correctly than to within 1·18 in., the result is that we can only establish 10 different classes of height, progressing by 1·18 in.—10×3=(30)—whereas, with the length of the head, which we can measure to ·039 in., and varies ·118 in. in different individuals, we are enabled to establish 30 classes. It follows that the length of the head is three times more advantageous, for anthropometrical purposes, than the height of the body.

In this, as in other matters, we must distinguish between quantity and quality. The height varies considerably in actual figures; but it is difficult to measure accurately. The diameter of the head, the length of the middle finger, foot, etc., varying only a few centimetres between different individuals, can be accurately measured.

These explanations show that it is always possible for us to establish our three divisions:—*Small; Medium*; *Large.*

III.—*Maximum Breadth of Head.*

This is measured with the compasses, from one parietal bone to the other, in the same manner as the length of the head.

IV.—*Length of Middle Finger of Left Hand.*

This is the best of our indications, for it can be measured to a millimetre, provided that care be taken that the finger is bent at an exact right angle with the back of the hand. There can be no deception practiced with the dimension, and it undergoes no alteration from adult to old age. Notice must, however, be taken of any exceptional length of nail in the person being measured.

V.—*Maximum Length of Left Foot.*

In taking this measurement the subject must, of course, be barefooted; and, in order to avoid any chance of trickery, the subject should stand on the left foot only, with the right knee slightly bent.

This is not quite so good a measurement for our purposes as that of the middle finger, as it can only be measured to within .08 in.

VI.—*Maximum Length of Arms Extended.*

This is a measurement which is popularly supposed to be always equal to the height, but it is, in reality, sometimes greater, by from 2

to nearly 8 in., and sometimes considerably less. It assists, therefore, in classifying, even after the height.

VII.—*Color of the Eyes.*

A special Table has been framed for the color of the eyes, in seven divisions:—

1. Pigmentation of iris, azure blue and slaty blue, with concentric pupillary aureola more or less pale, but destitute of yellowish pigment.
2. Iris, inclining more or less to blue or slate color, but with a light yellow aureola.
3. Same shade but with a further aureola, approaching orange.
4. Iris reflection more or less greenish and with a chestnut aureola.
5. Same shade with a chestnut aureola.
6. In this class the chestnut is no longer clustered in an aureola round the pupil, but over the whole surface of the iris, and only shows some greenish yellow irisations.
7. Eye entirely chestnut.

These categories are based on the intensity of the pigmentation of the iris.

We thus name the yellow orange matter generally clustered in a circle or aureola round the pupil. Firstly, we note the exact shade of the pigment when it exists, and secondly, the approximate shade of the deep stratum of the periphery of the iris. Hence our seven divisions.

This grouping enable us to pass, by almost imperceptible gradations, from the light blue to the pure chestnut eye.

This indication—the color of the eyes— has, however, the disadvantage of requiring an apprenticeship of several days to work it properly, and, moreover, it is not indispensable.

The above examples show how little relation there is in the sizes of the various parts of the human frame. A short man may have a large head and large feet, while another is tall, and has a small head and small feet. The various differences between one individual and another are so numerous, and, as you have seen, the measurements are so accurate, that out of 100,000 subjects there are scarcely ten whose measurements are at all approximate.

The useful results obtained from the practical working of this system were, naturally, not numerous until the commencement of the second year of its adoption—that is, until sufficient time had elapsed for the collection to accumulate; but, subsequently, they increased rapidly. After the system of measurements, and the classification which sprang from it had been practised in Paris for three years, more than 30,000 photographs had already been classified by this means.

When an individual comes to us under his real name it is unnecessary

to measure him. A search, of a few seconds only, in the alphabetical collection will enable us to find his likeness and to check his account of himself.

If, however, that search proves fruitless we must proceed with the anthropometrical description and then search according to the measurements.

We will take, for instance, the case of a prisoner called Bernard, (13th November, 1884); the name is not in the alphabetical collection and the man denies that he has ever been previously arrested or measured.

We now proceed to take a description of him, and we find his height to be 5ft. 3in.; the length of his head 7·37 in.; breadth of head 6·4 in.; length of foot 9·7 in.; and of his middle finger 4·1 in.; that the color of his eyes is chestnut with a greenish yellow periphery.

These particulars once ascertained and recorded, we proceed to the search by measurements.

One word, however, before commencing. We have supposed, in the preceding theoretical explanation, that we begin our divisions according to height. The variations to which the measurements of height are liable are well-known to all; and, by beginning our demonstration with that measurement, the mind was better prepared for what was to follow. In practice, however, it was not long before we found out the inconveniences attending this order of classification. Subjects came to us much bent, and gave thousands of excuses for not holding themselves straight. We were, in consequence, continually hesitating as to which should be our first mark.

On the other hand, by commencing our classification with the more reliable measurements, *i. e.*—those that are the least changeable—such as those of the head, finger and foot; and by leaving to the last those which had to be used with more caution—such as height, length of arms, and color of eye—we avoided the double search which these measurements often entail.

It is this latter order that has been followed. It is with the length of the head, therefore, that we commence.

Here we have the short lengths, *i. e.*, from the shortest up to 7·2 in. inclusive; here the medium lengths, 7·25 to 7·4 in., inclusive; and here the long lengths, *i. e.*, exceeding 7·4 in.

Bernard's head being 7·37 in. in length, we ought to find him in the class of medium length of head. We, therefore, at once put aside the other two classes; and, supposing they each contain 500 photographs, 1,000 photographs, or two-thirds of the total number have been withdrawn.

The remaining 500 are themselves divided into three classes, accord-

ing to the breadth of the head, *i. e.*, the narrow, up to 6 in.; the medium, from over 6in. to 6·22 in.; and the broad, exceeding 6·22 in.

The width of Bernard's head being 6·4 in. we should find him among the broad; and we thus put away two-thirds of the 500.

The remainder being again sub-divided according to the length of the middle finger, we have the short (up to 4·3 in.); the medium (from over 4·3 in. to 4·5 in.); and the long, or those exceeding 4·5 in.

Our individual having a middle finger 4·1 in. long, should be found among those in the short class.

We proceed similarly according to the length of the foot; and finally, according to the height; arriving thus at a packet containing but three or four photographs—among which we find one where the measurements correspond, almost to a millimetre, with those of the self-styled Bernard, and with exactly the same features. This photograph was that of Jean Leopold, a criminal of the worst type, who had been sought for during several months under that name, having been arrested and photographed about sixteen months before. The identification is complete.

We will now point out by what modification we have been enabled to dispense with photographs—a factor which has been objected to (in respect of the extension of this system to the provinces) on the score of expense, but which at first sight appeared to be indispensable.

As must have been seen from the specimens we have shown you, photography is but of very little help. A vast experience in human physiognomy is required to recognize in many of these photographs, that they are the likenesses of the same men, taken at different times when they were in custody. Nevertheless, these photographs were all taken in the same studio, by the same photographers, with the same apparatus, with the same light, and, as nearly as possible, at the same hour in the morning.

How much more marked, therefore, would the differences be if all those conditions were materially altered!

Such as they are, these photographs are always taken and mounted on a card in duplicate—each subject exactly full-face and in profile (right side). We may mention here that, for this sort of enquiry, the photograph taken in profile is far better than that taken full-face. The *silhouette* of the forehead, the nose, and, above all, of the ear, gives an unalterable form. It has happened, nevertheless, that every trace of resemblance has disappeared, except the profile of the nose.

Any change in the mode of wearing the hair, beard, etc., complicates the matter among adults. The differences between the two proofs of the same man are very great in each case. But for this we have a remedy: by placing a paper mask over each, so as to cover the hair and

beard, we at once find that we have identically the same face in both. These slight expedients, however, but imperfectly correct the insufficiency of photography.

The officials employed in the searches now make use of the figures alone. They satisfy themselves of the absolute similarity of the anthropometrical descriptions, even to 0·04 in., before they will even look at a photograph, lest they should reject the right card through being misled by a deceitful resemblance. Under these circumstances, photography is now of hardly any use, and is employed only as a means of checking.

It also sometimes occurs that offenders offer every opposition in their power to being photographed; whereas they willingly allow themselves to be measured.

Such cards, without photographs, are classified anthropometrically in the ordinary way; and when the man is arrested and comes to us again, under another name, his measurements guide us to his card instead of to his photograph.

We must bear in mind that this is not a question of convicting one man because his measurements happen to coincide with those of some other man; but only of giving information, and supplying a name and particulars, whereby the *juge d'instruction*, or other official, thanks to the previous notes, is enabled to verify their accuracy, and obtain evidence from other persons, bearing on the case. If our information, the outcome of anthropometrical work, is confirmed *â posteriori* by such evidence, the result, it must be admitted, is an absolute certainty for justice.

We purposely refrain from communicating to prisoners that we have discovered their *alias*—so certain are we of the correctness of our work. There has not, indeed, been one single error in the 700 recognitions thus sent, up to the present date. In these researches, made in the absence of the accused, in these notices of recognition, photography plays but a very secondary part. In fact, it is on the figures of the measurements, aided by the record of particular marks and scars, that the entire mechanism of the search and recognition of the prisoner depends.

M. Herbette—Director of Prisons under the Ministry of the Interior—to whom this method of anthropometrical description owes more than its life—by which we mean that incessant moral and material assistance which all new schemes require, if they are to succeed—had no hesitation about its extension from Paris to the whole of France, and this without having recourse to so costly an adjunct as photography.

The experiment, though recent, has been a complete success. It has nevertheless entailed certain additions—certain reinforcements—to the system, which should be mentioned.

As already shown, we had, by means of seven measurements, divided 60,000 photographs into final groups containing less than ten each. But why should we not take twelve measurements, instead of seven? We have an almost inexhaustible choice. The number of parts of the human frame, of which the measurements would vary in different men, is very great—such *e. g.*, as the fore-arm, the length and width of the ear, the height of the bust, the length of the little finger, and, if necessary, of all the other fingers, of the left hand.

In point of classification, our new measurements would give us the following results. The first will divide the final packet into three series—small, medium and large; and each of these will again be divided by 3, for the second additional measurement—giving nine additional sub-divisions—which figure, in its turn, will be multiplied by 3, for the third, fourth, and fifth measurements, in succession, *i. e.*, $9 \times 3 \times 3 \times 3 = 243$.

So that, by means of these five additional measurements, our final packet of ten will be distributed among 243 classes, and there would, on an average, be only one photograph in twenty-four pigeon-holes. Consequently, when in making a search by measurements we find such a card, we may be quite sure that it is the very one we are in search of. Supposing that several cards should be found, classed in the same final division, a more minute comparison of the figures will always be able to distinguish between them.

Finally we have, as a last check, the record of particular body-marks and signs, such as moles, scars from cuts on the fingers, scars from boils, etc. Three or four of these would suffice to enable a man to be identified out of a million. These special marks are much less deceptive and costly than photographs. We will even go so far as to assert that they are a better guarantee for identification than measurements; and that they would entirely replace the latter, if only it were possible to make use of them as a basis for classification.

The number of divisions, all equally probable, which are furnished by our twelve indications, combined and divided by the three categories (small, medium, large) exceeds *One Million*. Our power of classing, however, does not stop here.

Instead of commencing our classification by the stature, or length of the head, nothing would be more simple than to begin from the date of birth, to about ten years, without varying the plan in any other way. In this box we should place the cards of persons born from the beginning of the century, 1800 to 1809—then in successive boxes those born in 1810 to 19, 1820 to 9, 1830 to 9, 1840 to 9, etc.

This arrangement would give us an endless classification. For instance, thirty years hence, three new generations of ten years each will

have succeeded; and the earliest would be put away among the archives.

The only inconvenience would be the necessity for a double search, where there was reason to suspect deception in the statement of age; but that is far from counterbalancing the other advantages of the plan.

We do not believe there is anything to be gained by increasing the number of measurements or substituting others. Those which occur naturally to the mind—the breadth of the shoulders, or of the hips, for instance—have all some prohibitory inconvenience attending them.

Our dearest wish is to see the system of anthropometrical descriptions adopted by other countries. We shall not decline any modification which offers advantages; but we beg executives in other countries, who may be inclined to adopt the system, not each separately to introduce isolated modifications, which would destroy uniformity; when it is so easy to come to a general agreement on the choice of measurements, of instruments, and as to the *modus operandi.*

It is when the question first arises that the foundation of an international future must be laid—without waiting until routine, on the one hand, and the annual accumulation of dissimilar information, raise up an insuperable obstacle.—*The Humanitariau.*

PROGRESS IN PRACTICE OF MEDICINE.

READ BEFORE THE PROVIDENCE MEDICAL ASSOCIATION, BY JAMES H. KINGMAN, A. M., M. D., PAWTUCKET, R. I.

DURING the past twelve months there has been practically little change in the practice of medicine; the advance which has been made has perhaps been on more conservative lines than during a like preceding period.

There seems to be an increasing conservatism in the profession regarding new remedies and new lines of treatment. New remedies are being brought forward as rapidly as ever, but they do not appear to arouse the enthusiastic endorsement of the profession as they did some time since.

The *vis medicatrix naturæ* is still, and must always be, I apprehend, the sheet anchor in the practice of medicine. When we ignore that, we will learn that we are straying widely from the truth and tending once more towards empiricism. There has been a tendency of late years towards experimental therapeusis; to prescribing remedies (which are loudly vaunted by the agents of the various pharmaceutical concerns) but of whose constituent parts we know but little.

No man, it is needless to say, in this gathering, can prescribe intelli-

gently unless he knows the nature of the remedy to be administered, its composition, and more especially its physiological action.

Perhaps our greatest progress in treatment is due to the careful and painstaking efforts of the pathologists, to the all-important discovery of the germ origin of disease. This has led to great improvement in our efforts in combating morbid processes by furnishing us the clue to their ætiology.

On the other hand, while the progress on these lines has been immense, such progress has been rather in the line of combating disease by preventive than by curative measures. We may be able to keep out the comma bacillus, but let it once lodge in the intestinal tract we are as yet comparatively helpless to dislodge it before our patient has succumbed to its attacks.

Antiseptic treatment of disease has not, it seems to me, as yet achieved the brilliant success expected of it. Asepsis must be always our chief reliance; let the barrier erected by asepis be passed and we then must rely on nature alone to effect the cure; our knowledge of the physiological effects of drugs both in normal and pathological conditions aiding us somewhat in our efforts to assist nature to expedite the cure.

We wonder at the credulity of the laity in following after the charlatans and quacks; the Keeley cure, the faith healer, etc. But it is not strange, the art of healing has always been shrouded in mystery to the laity; they hail every apostle of new methods of treatment as one who is about to bring a new era to the world, to revolutionize medicine. Can we wonder at it when we see the abounding faith among many of the medical profession in every new method of treatment, the enthusiastic reception of the Bergeon treatment of phthisis with its dismal record of failures; the faith held by so many eminent men in the power of tuberculin to heal tubercular conditions, a faith which must here seem rudely shaken; yet do we doubt that if any man noted in the medical world should to-morrow propound a new method of treatment for phthisis, it would be as enthusiastically received by thousands in the profession as is Arabian Balsam as a cure for all diseases by the laity?

Among the many subjects in medical advance which have been called to our attention of late is that of hypnotism, especially hypnotic suggestion.

HYPNOTISM.

I will not dwell on that subject, as you all remember the intensely interesting and instructive paper on that subject read by Dr. Canfield last February.

Hypnosis, I might add, is an extensive and a scientific application based on a more thorough knowledge and study of the phenomena

known years ago as mesmerism or magnetic force. That it is proving of great service in the field of medicine specially in functional nervous troubles is undoubted; that it will accomplish all that is claimed by its most enthusiastic advocates I greatly question.

MYXŒDEMA

is a disease which has attracted the notice and study of the physician considerably of late. Of its ætiology, symptomatology, etc., I need not speak here. I will simply refer to a method of treatment which has proved of great benefit, although its limitations have not as yet been fully determined.

Dr. Arthur T. Davies, of London, reports cases of myxœdema treated with a preparation made from the thyroid gland of the sheep.

The preparation is made as follows: The minced glands are exhausted with glycerine and water, and the filtered liquid is acidulated with phosphoric acid. Lime water is then added until an alkaline reaction is obtained and the whole is set aside for from 12 to 24 hours to allow the pp. of calcium phosphate to deposit. The clear liquor is decanted from the pp. and the latter collected on a filter and dried over sulphuric acid. Each powder weighs 3 grains and is equivalent to 1-6 of a whole thyroid gland.

The treatment proved very successful, causing increase of temperature to the normal point; sometimes diuresis; a marked loss of weight and disappearance of the œdematous condition; a new growth of hair on the vertex and eye-brows; the skin becomes supple and moist; hearing is improved, as well as the speech; and mental and bodily activity are regained.

After this treatment is discontinued there is more or less relapse as a rule, and the patient is obliged to again resort to it when there is again a marked improvement.

The powders are given at first every day, then every other day.

Treatment by subcutaneous injection of the thyroid extract have also been found beneficial. It is found that 1-4 the amount given by mouth will be sufficient.

The injections are usually given in the interscapular region. In many cases abscesses have formed at the sight of injection, although strict aseptic precautions were taken. Sometimes alarming symptoms have followed the use of the injections—among others, tendency to syncope, nausea, loss of consciousness, tonic spasms, and stabbing pain in lumbar regions.

The injections are given from one to three times a week.

PHTHISIS.

Perhaps in no disease has there been such a variety of methods of treatment proposed as in phthisis. The disease has been studied from every standpoint by the most faithful and briiliant investigators. After all this study and investigation we have discovered the ætiology (or at least believe we have), but what advance have we made in the treatment?

From a therapeutic standpoint the progress is slight, I believe, and it seems to me it must always be slight. And yet pulmonary tuberculosis is on the decrease, it is no longer the scourge it was once. But this is due probably to improved hygienic surroundings, improved sanitation, better ventilation, better food, better and warmer clothing, and greater knowledge concerning these subjects among the people at large far more than to any change in therapeusis. The Bergeon treatment has had its day, so has the pneumatic cabinet; in like manner Koch's treatment is falling into disfavor, perhaps somewhat undeservedly, at least it is hardly possible to judge yet what this remedy might accomplish if properly prepared and used. Creosote internally seems at present to be the great specific in the treatment of this dread disease.

The element which enters as a rule into the treatment of phthisis is apt greatly to interfere with the value statistically of any special therapeutic treatment.

A phthisical patient, for instance, brought into a hospital will improve almost invariably for a considerable period under any treatment, and likewise many improve apparently as well under no medicinal treatment; the better food, sanitation, etc., being responsible for their improvement.

Dr. Gibbes, of Ann Arbor, and *Dr. Shurley*, of Detroit, believe that phthisis is not connected with or propagated or caused by the specific bacillus at all, that, although it is generally present in tubercular deposits, although it is a valuable indication, so far as diagnosis is concerned, nevertheless it is not the bacillus which is the ultimate cause of tuberculosis.

In some dried tubercular sputum the bacillus is found to be dead. Yet this same dried sputum inhaled by the monkey invariably produces tuberculosis. Hence from this, and other experiments, *Gibbes* believes the tuberculosis to be caused not by the bacilli, but by the effete material produced by them.

Dr. Shurley believes the toxic effect of the effete material can be nullified by the injection of chloride of gold and sodium. He uses a sol. 5 minims of which equals 1-30 gr. of the salt.. Of this he gives 5 m. as a maximum dose, beginning with m. ii and repeating every day

until a maximum dose is reached. After a few days this causes a reaction, sometimes violent, sometimes not.

He then lessens the dose or stops for a short time; a few days later he begins using a sol. of iodine m x =1-12 gr. They must be used in an absolutely pure state. This treatment has not been used for a sufficiently long period of time to determine whether it is of value or not.

Dr. I. N. Danforth, of the Northwestern University Medical College, has used this remedy quite extensively and reports that his experience does not increase his confidence in its specific power over tuberculosis.

At the present time creosote is being used extensively in the treatment of phthisis. It is commonly given with tr. gentian comp. 1 part to 2. *Freudenthal* begins with 2 drops three times daily, increasing 1 drop per day until the maximum dose of 100 drops of the sol. is taken three times daily in wine, brandy, whiskey, milk, or water.

Kinnicutt, on the other hand, believes that such large doses have no advantage over smaller ones long continued, and that hypodermic administration possesses no advantages over administration by the mouth.

Creosote and guaiacol have a beneficial effect on the cough, expectoration, strength, dyspnoea, and general health. They are, on the other hand, apt to cause gastric disturbance. Creosote is said by some observers to be contraindicated when there is a tendency to hœmorrhage or where there is an active inflammatory condition in the lung; more especially in the former condition.

I have seen marked improvement in the cough, expectoration, dyspnoea, and general health of the patient under long continued small doses of creosote in one or two cases.

But I believe that we must look to diet, change of climate, the nutrition of the patient, warm clothing, fresh air and good hygienic conditions and sanitation for the successful treatment of tuberculosis, far more than to any method of therapeusis yet suggested; although as adjuncts they are doubtless of great benefit.

Dr. Thomas J. Mays, of Philadelphia, is an earnest advocate of the administration of strychnine sulphate in phthisis combined with small doses of acetanilid and phenacetin.

He begins with 1-32 gr. increasing to the physiological limit. There is marked diminution in cough and expectoration and marked improvement in the increase of the appetite and strength.

ASIATIC CHOLERA.

The disease which the world in general dreads and fears most to-day is Asiatic Cholera. This disease and its treatment have been so fully discussed in this society, and in professional and lay journals that it is

useless for me to say much in this paper concerning it; of the prophylaxis I need say nothing here.

In the epidemic in Hamburg, in 1892, in severe attacks of cholera, calomel was the only antiseptic drug which proved to be of any value. For cramps hot baths for the whole body and morphine hypodermically in small doses. For loss of blood serum, injections of sterilized solution were used extensively both subcutaneously and intravenously. For vomiting, cocaine and chloroform, also lavage.

Injections of the metabolic products of pure cultures of the comma bacillus are used in some cases with apparently good results, the temperature remaining at normal through the algid state.

In the coma following the algid state no treatment appeared to be of any avail.

Opium by the mouth was generally condemned. Food during the state of collapse is worse than useless. At other times a light liquid diet is to be used, but animal food is to be avoided; as it furnishes too rich a pabulum for the bacilli.

DIPSOMANIA.

Dr. J. Bradford McConnell reports twenty-five cases of dipsomania treated by the hypodermic injection of nitrate of strychine. The dose varied from 1-30 gr. to 1-6 gr. twice daily for ten days, then once daily for ten days, the largest dose being reached about the third or fourth day and continued to the end of the treatment.

As a result of the treatment, *Dr. McConnell* found that as soon as the injections were commenced the desire for drink diminished and in a few days had entirely disappeared. In a week or so the strength and appetite had largely returned and the mental condition was decidedly improved. In most of the cases the patient was able to return to work in from a few days to two or three weeks.

Nearly all of the patients relapsed in from one to eleven months, the drug seeming to have lost its effect in that period of time. But at least in nearly every case it arrested what would have otherwise been a long debauch and caused at least temporary recovery. To prevent relapses there must be tried every method to strengthen the will by moral suasion, congenial occupation, tonics, exercise in the open air, and even hypnotic suggestion. If everything else fails a period of residence in an inebriate asylum may complete the cure.

EPILEPSY.

Dr. H. Elliott Bates, of Poughkeepsie, recommends the use of nitroglycerine hypodermically in attacks of epilepsy. He has used it in eleven cases without a failure. Once a second dose was required. He

uses 1-100 grains. The injection was in all cases followed by a very speedy return to consciousness, the after effects being markedly lessened.

COLD AS ANTIPYRETIC.

The use of cold in one form or another as an antipyretic, especially in the form of cold baths, has been increasing steadily in favor. As is well known in Germany the cold bath is supplanting all other antipyretics in the treatment of typhoid fever.

In a German Hospital in sixteen months 160 cases were reported. The number of deaths was eight. Relapses occurred eleven times, multiple relapses once, average number of baths forty-four, average number of days in hospital of non-fatal cases thirty-five.

A laxative dose of calomel was given if the case was seen early (before the 10th day) otherwise the treatment was strictly after the method of Brand. Sometimes strychnine was used as a cardiac stimulant, and opium to check the diarrhœa. The death rate in the hospital has been reduced 50 per cent. by this treatment.

In 313 cases elsewhere under the expectant treatment there were 47 deaths, nearly 4 per cent. of the cases were moribund on admission. Calomel was given if the case was seen early, whiskey was used as a cardiac stimulant, the cold pack was used to reduce pyrexia (over 105°). Diarrhœa was treated by bismuth with small doses of opium, and naphthalin if necessary. The diet was wholly fluid.

Comparing the two methods of treatment, it will be seen that the percentage of deaths was over double under the expectant method of treatment, excluding the 4 per cent. of cases in the latter class which were moribund on admission.

The use of antipyretic drugs in typhoid fever is being very generally abandoned. They seem to be of little, if any benefit, and sometimes are apparently of decided danger.

The belief is rapidly gaining ground that it is not the pyrexia *per se* which kills, but simply the morbid process of which this pyrexia is an index, and treatment directed to the temperature alone is of little or no avail; and if such treatment acts as a heart depressant it seems to be in many cases a decided element of danger.

It is well known that the cold bath acts in many other ways than as a simple antipyretic, hence its decided advantage over the antipyretic drugs. The beneficial results of cold applied in this way are too well known to require any extended remarks.

In the case of children there seems to be an element of danger in the use of cold baths in typhoid. In the majority of cases they are not needed, because of the mild course of the disease. *M. Levestre* has

frequently noted ill effects following their use in the graver cases and rather deprecates their use in the typhoid of children. If used, there is need of very careful supervision on account of the weakness of the heart always present.

Cold applications in scarlet fever are being highly recommended, cold packing about the jugular and carotids relieving the patient, and apparently diminishing the severity of the pharayngitis and diminishing the danger of adenitis. Cloths wrung out in ice water and applied to the heads and arms are not unpleasant to the patients and will often reduce the fever very markedly, thus rendering the patient more comfortable.

TREATMENT OF MALIGNANT GROWTHS.

The treatment of malignant growths has been much discussed of late, and many methods of treatment have been suggested and tried.

Draispul reported a case of a man twenty-five years of age who had an epithelioma of the tongue (so proven by microscopical examination). This epithelioma was destroyed by electrolysis in six sittings at intervals of 3 to 4 days. It was accomplished by a steel needle connected with the negative pole and a current of ten milliampéres used for ten minutes at a time. Two small nodules which formed on the tongue were treated by the cautery; a resulting ulceration was removed also by electrolysis. Unfortunately the value of this case is greatly diminished by the fact that no subsequent history is given.

Dr. Meyer recommends the use of aniline dyes in incurable cases of cancer; especially pyoctanin in doses of 10 to 12 grains.

Its analgesic effect was marked, the cancerous cachexia was relieved.

Ingals has used injections of lactic acid in a case of sarcoma 8 to 10 m. of a 50 per cent. sol. injected in one or two places three times a week seemed the best form of administration. At first there was considerable hœmorrhage, and at times a good deal of pain. It appeared to check somewhat the progress of the disease, but was in no sense curative.

R. Cowan Lees has made use of hypodermic injections of bi-chloride mercury in oil 1 to 2,000 in inoperable malignant growths. After injection there was distinct shrinkage of the tumor. He thought injections afforded relief, but were in nowise curative.

Inoculation of the cancerous growth with erysipelas has been recommended and largely tried with apparently some favorable results.

All the methods above mentioned need a far more extended trial before any reliable judgment of their value can be formed. They, or some of them, may prove of value; but it is more than doubtful if they fulfil the expectations of their most sanguine advocates.

From the very nature of things, progress in the field of medicine is far less rapid than in the field of surgery. The chemical changes which occur in the various morbid processes in the internal organs are so complex and as yet so little understood that the physician must, of necessity, be seriously handicapped in his struggles to attain to a rational and successful treatment of disease.

The clinic and the laboratory, however, working in unison for a common end are making marvelous progress in the practice of medicine, however little that progress may appear to be from one twelvemonth to another.

MANUFACTURE AND TESTING OF PEPSIN.

By C. H. DAGGETT, Ph. G.

(CONCLUDED.)

HAVING completed my examinations, I have come to the conclusion that the Test Scheme of Parke, Davis & Co. is the most reliable, because in this test the conditions are nearest those of natural digestion. Below will be found the results obtained by their assay.

P. D. & CO.'S ASSAY.

Boil fresh eggs (average amount of albumen is 400 grains to an egg) for 15 minutes; cool, and after freeing the coagulated albumen from all yolk and superficial moisture, press by means of a spatula through a brass sieve having 30 meshes to a linear inch. After thoroughly mixing the moist divided albumen, weigh 1000 grains and transfer to a mortar. Measure out exactly 11 fluid ounces of water previously warmed to 100° F; carefully triturate the albumen and part of the water, added in portions, and thereby obtain a uniform division of the particles, transfer this by the aid of the remaining water to a flask, having a capacity of 16 fluid ounces or to any suitable container in which the temperature can be held constant; to this add 50 minims of hydrochloric acid, U. S. P. (sp. gr. 1.16 containing 31.9 per cent. acid), and bring the fluid to exactly 104°F, then add 1-4 grain of the pepsin under examination, noting the exact time of the addition; then immerse the flask in a water bath, heated exactly to 104°F, and provided with the necessary apparatus for maintaining a constant temperature. After digesting 6 hours with frequent (every 15 minutes) rotation of the digestive fluid, remove the container and immerse it in cold water to stop digestion.

RESULTS.

NAMES OF BRANDS TESTED.	PHYSICAL PROPERTIES.	ACTIVITY CLAIMED; ONE GRAIN WILL DISSOLVE ——GRAINS OF EGG ALBUMEN.	ACTUAL COMPARATIVE ACTIVITY.
Sharp & Dohme's,	Small semi-transparent, soluble scales; no disagreeable odor.	6,000.	6,000
Parke, Davis & Co.'s,	Semi-transparent scales, soluble.	4,000.	4,000
Fairchild's,	Opaque scales, slight putrefactive odor, amber color, partially soluble.	2,500 in four hours.	2,500
Armour's,	Light amber colored scales, slight fatty odor, soluble.	2,500.	2,400
Wyeth's,	Yellowish granules, partially soluble.	2,000.	2,000
Jensen's,	Reddish brown crystals, putrefactive odor, hygroscopic.	700 to 1000 in a few hours.	800
Boudalt's,	Light colored powder, partially soluble.	——	350

The standard of the pepsin in the 1890 U. S. Pharmacopœia having been raised to 1 in 3,000 will make the pepsin as prescribed, more reliable, as only the first-class manufacturers can obtain a pepsin of that strength and sell it at any reasonable price.

REPORTS OF SOCIETIES.

R. I. MEDICO-LEGAL SOCIETY.

ANNUAL MEETING FOR THE ELECTION OF OFFICERS, ETC., HELD AT THE R. I. MEDICAL SOCIETY ROOMS, OCT. 19, 1893.

OFFICIAL REPORT.

DR. **Charles A. Barnard,** the president, in the chair.

Dr. H. Goodwin Mackaye, Secretary.

The Sec'y and Treasurer, **Dr. Mackaye,** read his report for the year, which showed that there was a good-size balance in the treasury. The report was received and placed on file.

The Committee on Schedules, consisting of **Drs. Palmer, Keefe** and **Garvin,** reported progress, and was continued.

The Committee on Memorial to the Legislature to abolish grade crossings, consisting of the President and Secretary, also reported progress and the President remarked, that owing to recent legislative muddles, the committee had been unable to accomplish anything. The new officers elected for the ensuing year are:

President, **Dr. John Winsor,** of Anthony; *Vice-President*, **Dr. H. Goodwin Mackaye,** of Newport; *Secretary and Treasurer*, **Dr. N. W. Kelliher,** of Pawtucket.

Censors, **Dr. A. Saunders,** of Carolina, was eleeted to fill vacancy caused by the death of Dr. Pike.

The former Censors were re-elected and the *Board of Censors* consists of: **Dr. H. Goodwin Mackaye**, of Newport; **Dr. A. A. Saunders**, of Carolina; **Dr. L. F. G. Garvin**, of Lonsdale; **Dr. J. H. Morgan** of Westerly; **Dr. John Winsor**, of Anthony. **Dr. Mackaye** thought, that the Medical Examiners of the state ought to take more interest in the society, "for it helps us all" said the doctor, "to feel that we have some of the brethren behind us and some moral support in times of difficulty and doubt. Associate members would also be valuable, such as members of the legal profession, to read papers on points of law."

Dr. Palmer thought "that all medical examiners in the state ought to feel it to be to their interest to attend the society and consult about their cases.

It is hard for the members from the outlying districts to attend, however, and it would be well to meet at the home of the examiners, at Westerly or Woonsocket for inst.

The Massachusetts Medico-Legal Society has a good attendance and its proceedings are published. Many have important engagements that keep them away, but let us persist in trying to do the best we can.

We are all interested in our new discoveries. We get them daily. We are first on the place and everything depends upon us and we have the first and best opportunity. We are entitled to more credit than we generally receive and we are trying to conduct our positions with honor to ourselves and the state."

Dt. Barnard remarked that he, for one, would be glad to meet out of town, "for we owe it to our out of town members."

"In a paper read recently, I began with this," said the doctor, "Practice of medicine is as difficult as real warfare. We are constantly observing new things. The public has, as yet, utterly failed to appreciate the importance and difficulty of our position. If we could interest members of the legal profession to meet with us I should be in favor of evening meetings."

Dr. Kelliher r*eported some interesting cases of poisoning* in Pawtucket.

"On the 30th of July, this year, three men went into a bar-room to drink. After taking some whiskey they were all, soon after, taken violently ill. They were found with livid cyanosed countenance; dilated pupils; stertorous breathing; muscular rigidity, and a strong odor of prussic acid in the breath. Essential oil of bitter almonds was supposed to be the poison.

Two died that same night and one lived. The one surviving was pulseless, comatose, and cyanosed.

Stimulation of any kind seemed to have no effect. Veins were much distended. Thinking that the removal of some of the poisoned blood might relieve the system, or at any rate the overfilled venous circulation, twelve ounces were accordingly removed.

The blood was entirely defibrinated and black. The vomit had a distinct odor of prussic acid.

Lips and fingernails remained purple for some days. **Autopsy** of the two men revealed general hyperœmia of all organs and strong odor of prussid acid.

I suspected that nitro-benzol might have been the cause of death and this was substantiated by the chemist, who found it present in the viscera.

Nitro-benzol is not a very common chemical and is used in perfumes and aniline dyes. Seventeen drops have been known to prove fatal. The odor is very much the same as that of oil of bitter almonds. The man claimed that he and the other two went into the bar-room and drank some whiskey which he thought contained the poison.

The chemist found that the survivor took as much as the other two who died.

Nitro-benzol is converted into aniline in the blood. My procedure of bleeding seemed to have good effect."

Dr. Barnard. "Was it drank clear or diluted?"

Dr. Kelliher. "I cannot say. The judge asked the question if the whiskey was poisoned or not. It was thought it contained 50 per cent. of the chemical. I do not know which one of the victims took the most. It has been used in adulterating liquors. The bar keeper is arrested."

Dr. Palmer. "*Dr. Kelliher's* treatment teaches us an important lesson. When we are satisfied that the blood is poisonous we do right in removing as much as possible; this is applicable in every toxic disease. We should not then be afraid to remove the blood if patient is failing, for it is overloaded with poison and we will thus relieve the system."

Dr. Barnard asked if *Dr. Kelliher* was satisfied that the bleeding was useful, for it was certainly a strong proof of the efficiency of the treatment that one survived, although he drank more poison than the others.

Dr. Mackaye. "I had opportunity to look up toxines recently and found a great many benzols. I will mention tyrotoxicon especially. *Prof. Vaughn* of Ann Arbor has demonstrated it and has made conclusive experiments that it occurs in milk.

It arises in the milk commonly by a process of decomposition, either from the containers not being cleaned properly, or the milk being exposed to atmospheric contamination. Some very bad cases of posioning have been recorded, one in particular I recollect, where milk cans had been kept in a rotten milk house, and the people who used it "died."

Dr. Hunt spoke of cases caused by improper treatment of the fresh milk. The milk was tightly canned, transported during the heat of the day and stirred up.

Dr. Mackaye said that *Dr. Vaughn* had published a list of his cases and everybody was finding the poison now.

Dr. Barnard. "Is this the poison so often found in ice cream?"

Dr. Mackaye. "Yes; Prof. Vaughn says so. It is also found in cheese, butter and oysters."

Dr. Saunders. "A family, living in a cottage near me, made a chicken pot pie and put it in a tight tin can, and everyone who ate it was taken sick. The symptoms were vomiting, purging and all indications of toxine poisoning.

Dr. Mackaye related a singular case of drowning, where man was rescued and after much effort, consciousness re-appeared. A journal article mentioned, that water entered middle ear and produced cerebral congestion and unconsciousness. In half of the cases he had found perforation of the drum.

Dr. Palmer said that the sounds and noises in the ears in those being drowned are terrific, and to be likened to the roaring of a hundred cannon.

Dr. Mackaye related a case coming to his notice of a child dying of marasmus, three months old.

Dr. Barnard thought they had no right to bury the child.

Dr. Palmer said, that in the city of Providence there was a provision that the Supt. of Health should investigate cases where persons died without medical attendance.

Dr. Mackaye said it had happened in Newport and that state law made no provision for it.

Dr. Barnard thought undertaker could be punished for it.

Dr. Hunt said that undertakers were only requested to try "where possible" to get physicians certificates.

Dr. Barnard said that *Dr. Fisher* once told him that he (Fisher) would prosecute any undertaker burying a person without a physician's certificate.

A bountiful collation was hereafter partaken of under friendly discussion of matters of interest and importance to the members, and the Society afterwards adjourned.

WASHINGTON COUNTY MEDICAL SOCIETY.

THE regular quarterly meeting of the Washington County Medical Society, was held by invitation of the President, **Dr. E. E. Kenyon** at his residence, Usquepaugh, R. I., Thursday, Oct. 12, 1893, at 12 o'clock M. **Dr. Kenyon** in the chair.

After the usual amount of routine business, **Dr. E. E. Kenyon** gave an epitome of a case under his care some three months ago, and presented the patient for examination. The patient, a female about thirty years of age, of prior fair health, was taken suddenly sick, some three months ago. When first seen she complained of severe pain in right side, over region of liver, extending up as high as the third intercostal space, pulse 120, temperature 102° F. Within forty-eight hours the pain subsided in part from side, but a severe pain was complained of in right iliac region, great amount of tenderness over right side of abdomen, and upon examination a tumor some three inches in diameter was discovered in right side about on a line drawn from right anterior superior spine of ilium to umbilicus, with point of most marked tenderness about midway between two points, temperature 103° F. A diagnosis of probable appendicitis was made.

Drs. A. A. Saunders and **J. Howard Morgan** were called in consultation who concurred in the diagnosis, but in the present aspect of the case, advised against immediate operative interference. There were no physical signs of lung trouble present, the liver dulness was increased.

The more acute symptoms subsided after a week or so of treatment, and the patient had made a gradual improvement until the present time.

Upon examination the following condition was found: pulse quick, about 100, but in a great measure due to excitement, temperature normal, no symptoms pointing to stomach or bowel troubles, appetite fine, is in about her usual weight, countenance pale, and of rather a cachexia scrophulosa look, cannot stand upright, in walking uses a cane and leans to the right, lungs healthy; there is marked increase of liver dulness and in right iliac region is a tumor, oblong, uneven to feel, about three inches long by two inches wide, dull on percussion, the dulness extending up to, and uniting with that of the liver; there is marked tenderness over tumor, but none over liver; the most marked tenderness is at a point about one inch in circumference, on a line drawn from the right anterior superior spine of ilium to umbilicus. She complains of some pain over region of liver and tumor, of a dull character. There have been no acute symptoms since subsidence of first attack. In the subsequent discussion of the case the treatment of appendicitis was well

brought out. Dr. Morgan gave a brief description of a case that had recently fallen under his observation, when an early operation was done, in which there was undoubtedly circumscribed peritonitis. At the operation there was found an abscess containing about two drachms of very fetid pus. The case terminated fatally some three or four days after the operation with diffused peritonitis.

Dr. E. P. Clarke, in his discussion of the subject asked the question, "Why all authorities advised against aspirating?" He cited a case that came under his care some three years ago, to which Dr. A. B. Briggs was called in consultation. In this case it was decided to aspirate; about three ounces of pus were drawn off, and the patient made a good recovery. He also alluded to another case seen in consultation with the late Dr. J. H. Merrill, in which aspiration was decided on; in this case some six ounces of pus were withdrawn, and the case made a good recovery.

Dr. A. B. Briggs, said that in his practice of over twenty years he had met with quite a number of cases of appendicitis; he could not remember that any had proved fatal; he remembered making a post-mortem on a case that occurred in the practice of the late Dr. Wm. Wilbur, of Westerly. In this case there was found impacted in the appendix vermiformis a cherry pit. This case occurred some eighteen years ago, and as he remembered it, thought that the patient's life could perhaps have been saved by an operation. He referred to a case of recurrent appendicitis, that occurred in his practice some four years ago. The patient had three attacks, extending over a period of some fifteen months. In the third attack consent was obtained to aspirate, (it could not be obtained in the second) about five ounces of very fetid pus were obtained, the patient made a good recovery, and has remained well. The question of when to operate was not so hard to decide, as when not to. From his limited experience he did not feel that the surgeon was justified always in the early operation, where we had only circumscribed peritonitis, even if one or two drachms of pus were found. In a marked case of the disease, he would use the aspirator; if pus was found, withdraw it, if no marked improvement soon followed, would advise an operation.

Dr. Morgan read a paper from the Transactions of the Medical Society of the State of California, upon "Colles' Fracture," by E. H. Woolsey, M. D., of Oakland, Cal.

The author held that in every case of genuine "silver fork" variety the fracture of the radius allows the carpus, by forced extension, to ride upward and backward, and the attachment of the internal lateral ligament to the styloid process of the ulna, being torn away so as to leave the process roughened and hook-like, the tense fibres of the posterior annular-ligament are slipped upward over the posterior surface of the

styloid; that by reason of the tension of the displaced annular-ligament and of the extensor carpi ulnaris—displaced from its groove to the radial side of the head of the ulna—the hand and carpus are securely held in this abnormal position; that as soon as the tension is relieved, the fracture is very easily reduced and all deformity at once disappears; that to make a perfect diagnosis and to effect a perfect reduction *an anæsthetic is necessary.*

The mode of reduction is as follows: with one hand grasp the hand of the patient as in hand-shaking; with the other hand take firm hold of the patient's wrist, making forward pressure with the thumb against the back of the ulna above the styloid process; now make traction; while making traction carry the hand to the radial side—to the position of abduction; thence, while still making traction, perform circumduction—carrying the patient's hand from the position of abduction backward in forced extension, rotating it to the ulnar side, to adduction, then swinging it around in forced flexion to the point of beginning. By such manipulation of the hand, the posterior annular ligament and the tendon of the extensor carpi ulnaris will be returned to their natural positions, although it sometimes requires more than one *leading about* to accomplish the reduction.

Reduction once effected, the forearm should be placed upon its ulnar border, midway between pronation and supination, the hand falling by its own weight in passive adduction, and *if it be steadily maintained* in this position until the fracture is united and the radio-carpal, radio-ulnar and other injured ligaments are repaired, *a perfect result will be obtained.* This maintenance may be effected by any of the various posterior pistol-shaped splints with a properly padded anterior splint, provided (and this the author strongly insists upon) that the posterior splint is notched or cut away so as to avoid making any pressure against the lower end of the ulna. Having adjusted the properly padded splints with a suitable compress against the ulna at the front of the wrist, the author applies a strip of adhesive plaster around both splints at the wrist, also around the upper part of the dorsal splint and forearm, and another below to hold the hand to the splint, the fingers being kept in the attitude of semi-flexion; then beginning at the hand, he applies an elastic flannel bandage, leaving the thumb free from the middle of the first phalanx, and continues it upward to a little above the upper end of the dorsal splint. Over this, he applies several "crinoline-starch bandages," and keeps the patient in bed with the extremity raised on a pillow with the hand higher than the elbow, to prevent swelling, until the starch cast is dry, when he may be allowed to go about with forearm in a sling. Whenever swelling occurs he should keep the recumbent posture till it disappears from the exposed thumb and fingers. At

all times while in bed, during the whole course of treatment, the forearm should be elevated on a pillow at the patient's side or else resting upon his chest. If the dressings become at all loose, they should be immediately re-applied, and in any event an examination of the wrist should be made about the tenth or twelfth day and again in ten or fourteen days more, and any irregularities of pressure corrected. The length of treatment with adults should be about eight or nine weeks—with children four to six, and the author is convinced that the advice generally given as to the making of early passive motion after Colles' fracture is productive of much mischief, and that any motion of the hand except that of the ends of the fingers and thumb before the fourth week in children and the seventh week in adults, is premature. An interesting list of cases illustrated from photographs attested the very remarkable success of the author's treatment.

After the reading of the paper by **Dr. Morgan,** the members very submissively accepted the suggestion of Mrs. Kenyon, and retired to the spacious dining room, where a sumptuous fowl dinner was served them in true New England style.

AMERICAN NEUROLOGICAL ASSOCIATION.

[CONTINUED.]

DR. KNAPP, of Boston, said that there are no detention hospitals in Boston, and that no urgent need for them has been felt under existing laws. A few emergency cases requiring immediate restraint are admitted to the general hospitals. Others can be taken at once to the nearest asylum on emergency certificates. These consist of two separate certificates. A bond must be given by the superintendent, or one of the physicians, to the effect that the patient is to be formally committed, or released within five days. This system has proved eminently satisfactory, and hasrarely been abused.

Dr. Mills, of Philadelphia, stated that the method described by Dr. Field is in vogue at the Philadelphia Hospital. There is a detention ward for isolating cases of insanity. Two physicians are assigned to examine these patients before commitment. This ward has also been used for several years for clinical instruction.

Dr. Preston, of Baltimore, remarked that the lunacy laws of Maryland are inadequate. Endeavors are being made to establish a detention ward. At present insane patients are kept at police stations, as no general hospital is prepared to receive them. This method of dealing is entirely unsatisfactory.

The president said that in Chicago there is a detention ward in the city hospital in which cases of insanity are kept until transferred. The commitment laws of Illinois are now quite satisfactory.

Dr. Frederick Peterson, of New York, read a paper upon

The Temperature in General Paralysis of the Insane,

which was based upon observations, made with the assistance of Dr. Langdon, on twenty-five cases in the wards of the Hudson River State Hospital for the Insane. The temperature was taken every two hours for one week in each case, and in ten

cases in the two axillæ simultaneously from every two to four hours for a week. It was found that the average bodily temperature corresponded with physiologic norms. The diurnal oscillations also corresponded to physiologic norms. Asymmetric axillary differences were so small that they could not be considered as abnormal, and certainly not of any diagnostic significance.

When unusual variations of temperature occur in general paretics, the cause must be sought for in conditions not related to the pathologic phenomena, but depending upon other thermogenic features unrecognized by the physician, or "masked" by the mental state of the patient. Thus, in one case an increasing hyperpyrexia was noted during the second week, but the pneumonia causing it was "masked" until the fifth or sixth day, the patient dying on the sixth day. In another case, in which the highest single daily oscillation was 35°, and the average daily oscillations for the week, 22° Fahr., the patient had bedsores on the sacrum and heels, and was undoubtedly septicemic. That the temperature might vary in the paralytic seizures of these cases was not gainsaid, no observations having been taken in such conditions.

Dr. Gray, of New York, said that a large number of different pathologic conditions are often included under the name of general paresis. Some represent the terminal stages of intra-cranial syphilis.

Dr. Charles K. Mills, of Philadelphia, said that the diversity of the manifestations of general paresis will account for the different experience of various observers.

Dr. Joseph Collins, of New York, read a paper entitled

The Anatomical Changes in the Spinal Cord in an Old Case of Infantile Paralysis,

demonstrating numerous sections and reporting the history of a case.

Dr. G. M. Hammond, of New York, read a paper on

Progressive Muscular Atrophy.

He exhibited microscopic specimens and made a pathologic report of two cases, and referred to the fact that considerable confusion is occasioned by the misapplication of the term "peroneal type" to a disease totally dissimilar to the one under consideration.

The first patient was a woman, forty-six years old, without a history of gout, rheumatism, or syphilis, who, a few days after stumbling over a chair and bruising the right shin slightly, was unable to walk as well as previously. In a little while, marked weakness of the flexors of the foot and the extensors of the toes developed. In the course of a year there was complete paralysis of the entire right leg, with reaction of degeneration, loss of power, and of electric contractility in the anterior tibial muscles of the left leg, and atrophy and loss of power in the thenar and hypothenar muscles of the right hand. Gradually, but rapidly, the other extremities became involved, and ultimately the abdominal and intercostal muscles were affected. Death took place suddenly from either cardiac or respiratory paralysis.

The sections of the cord showed sclerosis of the pyramidal tracts and atrophy of cells in the anterior horns, and degeneration of Gowers' column throughout its entire extent. The conclusion to be drawn from the clinico-pathologic study of this case is that the muscles of the hands were supplied from the mesial group, and the muscles of the forearm from the anterior group of cells in the anterior horn.

In the second case the disease only affected the muscles of the left thumb. The patient was under observation for eleven years. The case ran the usual course, and was in every way typical. At the time of death all of the muscles from the level of the armpits upward, except the facial muscles, were atrophied, as well as those of the

upper extremities. The woman became maniacal, and finally died from exhaustion.

The cord and medulla were examined, and the changes were identical with those described in the preceding case.

The conclusion was reached that these cases demonstrate that progressive muscular atrophy is due to a degeneration of the cells in the anterior gray masses and the antero lateral white columns; also, that it is superfluous to divide progressive muscular atrophy into different types, because the disease does not invariably begin in the same group of muscles.

Dr. Sachs said that while there could be no doubt that the Aran-Duchenne type is of spinal origin, it is not certain that the case of Dr. Hammond represented the peroneal form of progressive muscular atrophy as described by Charcot, Tooth, Hoffman and himself. If the case were such a one, the findings in the spinal cord would have been of great importance. There is yet doubt whether the peroneal form represents a spinal disease or a peripheral affection.

Dr. Putnam referred to a case of progressive muscular atrophy in an adult in which there was rapid destruction of gray matter throughout the cord. Despite the violence of the process, portions of the anterior and lateral cell-groups were preserved.

Dr. F. X. Dercum, of Philadelphia, read a paper entitled

Optic Neuritis, Blindness, Deafness, and the Knee-Jerk in Cerebellar Disease.

He said that many of the symptoms of cerebellar disease are both inconstant and variable. They are difficult of explanation and frequently impossible to correlate.

Seven cases were reported in which optic neuritis, blindness, deafness, and modifications of the knee-jerks were present.

It is a matter of common experience that high grades of neuritis may exist without marked impairment of vision. It seems, therefore, that the added symptom of blindness gives a special significance to the optic neuritis found in these cases. It appears that if for any reason optic neuritis is present in cerebellar disease, it is likely to be intense in degree, and sooner or later associated with total blindness.

The proximity of the quadrigeminal bodies has naturally suggested itself as in some way explaining this blindness. The ataxia and titubation at once suggest disease of the vermiform process. Anatomic considerations, as well as the results of the autopsy in one of the cases, show that if a growth be situated in the vermiform process, especially anteriorly, and if the growth continue to enlarge, it will sooner or later press upon the superior cerebella peduncles and very probably upon the quadrigeminal bodies themselves. If the relation of the fibres of the optic tract to the primary optic centers be recalled it can readily be understood how a neuritis should, result if pressure or irritation occur at this point. The directness of the irritation will explain why the neuritis should be of a high grade, and, sooner or later, associated with total blindness.

The deafness present in some cases of cerebellar tumor may perhaps be explained in a similar manner. The studies of Spitzka, Monakow, and others, have made it extremely probable that the posterior quadrigeminal bodies stand in the same relation to the auditory fibres as do the anterior to the optic fibres. It would simply be necessary, therefore, that the pressure involve these structures in order that deafness should be a symptom.

The condition of the knee-jerk presents a problem of peculiar difficulty. The loss of knee-jerk in disease of cerebellum may be ascribed to loss of muscletonus.

It is extremely probable that lesions of the cerebellum act as do lesions elsewhere, in one of two ways, *i. e.*, either by destroying tissue, and thus destroying function,

or by causing irritation. It is, perhaps, in this way that the fact can be accounted for that in some cases of cerebellar disease the knee-jerk is absent and in others present or even exaggerated.

When the disease was advanced there was loss of reflex action to light.

Dr. Putnam spoke of a case of long-standing optic atrophy, with practically no other symptom. Although the optic neuritis persisted for two years, the autopsy showed a cyst and tumor of the cerebellun.

Dr. Preston said that he had noted loss of the muscular sense in two patients. In four cases the knee-jerks were irregular, disappearing and occasionally returning.

Dr. Knapp said that in all of his cases confirmed by autopsy, there was neuritis or optic atrophy. In one case in which a cerebellar tumor was suspected, neuritis had not developed. Blindness had not been so constant. In another case the light reflex was lost when the pupils became dilated. Pressure on the corpora quadrigemina is most likely to produce blindness. Dr. Knapp has never noted deafness. He considered untenable the view that disease of the middle lobe of the cerebellum is responsible for the atactic gait.

Dr. Leszynsky, of New York, expressed the view that the concomitant basal meningitis has much to do with the production of the optic neuritis, by extension of the inflammatory process along the nerve-sheath. In many cases the neuritis is a late symptom. When the neuritis or optic atrophy is accompanied by loss of light-perception, the perpillary reflex is always absent.

Dr. C. L. Walton, of Boston, read a paper entitled

A New Method for the Reduction of Dislocation of the Cervical Vertebræ.

In illustration of the method, let it be supposed that the left articular process of one vertebra has slipped forward over that of the vertebra below, and has fallen into the depression anterior to the articular process. This bends the head to the left, and turns the face to the right. The reduction is accomplished by extending the head diagonally backward to the right, so as to elevate the articular process, after which rotation to the left replaces the displaced vertebra. The transverse processes on the right act as a fulcrum. The ligaments that hold the vertebra firmly in the false position make no opposition to this maneuver, which requires no force.

In bilateral dislocation the same movements should be made, first on one side, then on the other.

[to be continued.]

NEWPORT HOSPITAL.

THE twentieth annual report of the Newport Hospital is before us, and no greater credit could be reflected upon its able management than that which the report conveys. The number of patients treated shows a small decrease over the records of the previous year.

STATISTICS FOR 1892.

Number of patients June 30, 1893,	34
" " " admitted,	371
" " " treated,	408
" " " discharged,	344
" " " died,	39
" " " remaining, June 30, 1893,	25
" " births during the year,	3
Daily average of patients,	30.56

MEDICAL REPORT.

Whole number of patients treated 250, with the following results:

" " " " recovered,	146
" " " " improved,	52
" " " " unimproved,	16
" " " " died,	27
" " " " remaining,	9

SURGICAL REPORT.

Whole number of patients treated,	158
" " " " recovered,	106
" " " " improved,	17
" " " " unimproved,	7
" " " " died,	12
" " " " remaining,	16
On whole number under treatment, died per cent.,	9.55+

MEDICAL BOARD.

Henry E. Turner, M. D., *Consulting Physician and Surgeon;* H. R. Storer, M. D., *Consulting Physician and Surgeon;* Francis H. Rankin, M. D., H. Ecroyd, M. D., C. F. Barker, M. D., T. A. Kenefick, M. D.

VISITING PHYSICIANS AND SURGEONS.

1893. July, T. A. Kenefick, M. D.; August, September, October, H. Ecroyd, M. D.; November, December, 1894, January, F. H. Rankin, M. D.; February, March, April, C. F. Barker, M. D.; May, June, T. A. Kenefick, M. D.

ADMITTING PHYSICIAN.

Henry F. Turner, M. D.

OBITUARY.

†

WM. F. HUTCHINSON.

DR. HUTCHINSON was born in Oswego, New York, Oct. 28th, 1838, and died in Providence, R. I., Sept. 30th, 1893. He studied in Philadelphia High School, and his collegiate education was obtained at the Buffalo Medical College. He afterwards pursued the study of medicine abroad in French and German universities.

Since the close of his student career his life has been a most active one in the service of his country, in both army and navy, in the work of his chosen profession, in literature, art and travel.

At the beginning of the Rebellion he went to the front with the 22d Regiment of New York Volunteers, as Assistant Surgeon. He saw a deal of service, and was himself wounded several times, while caring for the injuries of others on the field. At the battle of Antietam, while giving a drink of water to a wounded rebel soldier, Dr. Hutchinson was struck by a bullet just over the heart, and to the results of that wound is ascribed the development of the disease which ended his life.

He received honorable discharge after rendering most valuable service in many ships, and sailing under his country's colors in many seas.

The next four years of his life were passed at Minneapolis, where he acquired an extensive practice.

In 1874 Dr. Hutchinson came to this city, where he has since resided, except for his frequent European and South American trips. For the last twenty years he has made a speciality of nervous diseases.

He was Assistant Secretary General of the Pan-American Medical Congress, the organization of which was largely due to his efforts, as he was the representative who brought about the co-operation of the medical men in the Spanish American countries. He was also Vice-President of the American Electro-Therapeutic Association and a Fellow of the Societé Francaise Electro-Therapeutique.

Dr. Hutchinson's labors had not been confined exclusively to the practice and study of medicine. He was formerly an editor of the old *American Magazine*, and of the *Star* and *Press* of Providence, and up to the time of his death he was one of the editorial force of the *New England Medical Monthly*, published in Danbury, Conn., the *Times Register* of Philadelphia, the *Journal of Balneology* of New York, and *L'Electrotherapie*, Paris.

Among his works are many interesting volumes of travel in South America, among them "Under the Southern Cross," "A Winter's Holiday," and "Islands of the Summer Sea." In medicine his most important work was "Practical Electro-Therapeutics."

In Providence he has been one of the best known men in Grand Army circles. Immediately after his arrival here he joined Slocum Post, and afterwards became the Commander. Later he organized Arnold Post, No. 4, of which he was also Commander for several years. He was Secretary of the S. and S. Historical Society, of the Rhode Island Medical Society, and at the last appointment of professors at Tufts College, at Boston, he was chosen as lecturer for the School of Medicine.

He was a Mason and an Odd Fellow, member of the Rhode Island Medical Society, American Public Health Association, etc.

WAR RECORD.

Assistant Surgeon 22d New York Volunteers, May 16, 1861.

Surgeon, August 18, 1862.

Brig. Surgeon, U. S. Vols., September, 1862.

Battle of Bull Run, (prisoner of war July 21, 1861, imprisoned nine weeks at Libby Prison, Virginia.) Escaped.

Cedar Mt., Rappahannock.

Catletts Station, Groveton.

Second Bull Run (prisoner of war at 2d Bull Run but escaped three days after.)

South Mt., Antietam.

Wounded at Antietam, Sept. 17, 1862.

In charge of Falls Church U. S. A. General Hospital, March to August, 1862, also Provost Marshal, Fairfax County, and commanding Post at Falls Church.

On duty at office of the Surg. General and at U. S. A. General Hospital, Portsmouth Grove, R. I. Discharged by order of War Department to accept commission as Acting Assistant Surgeon, U. S. N., April 13, 1863.

U. S. Sloop of War Vincennes, Acting Past. Asst. Surg. August, 1865.

U. S. Frigate Potomac.

Siege of Port Hudson, Louisiana.

Siege of Vicksburg, Miss.

Battle of Mobile Bay, Ala. Wounded.
Captured Mobile, Ala., Galveston, Tex.
Honorably discharged, Dec. 1869.
Army of Potomac.
West Gulf Squadron, Brazil.
African and European Squadron.
Iron Brigade.

This is the brief history of one of the more prominent members of the medical profession in Rhode Island. Dr. Hutchinson was the happy possessor of much mental power, and to a good education he had added that liberality of view, broadness of mind, outward and inward polish, which is only obtained in travel and constant literary pursuits. A skilled surgeon, a fluent writer, an interesting and witty speaker, a thoroughly refined and polished gentleman, a good father and husband, an honored citizen has gone from us. Honor to his life, deeds and memory.

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†

GEORGE E. CARPENTER.

DR. CARPENTER was born August 23, in that part of the town of Seekonk, Mass., which in 1862 became East Providence.

His early life was passed on his father's farm and in attendance at the district school. In the fall of 1865 he entered Mowry and Goff's English and Classical. School in Providence, graduating from the classical department in 1868. He then entered Brown University, receiving the degree of A. B. in 1873, having been absent from college one year 1870-1871, during which time he studied medicine. He received the degree of A. M. from Brown University in 1878. He studied medicine under the late Dr. Sylvanus Clapp, of Pawtucket, receiving the degree of M. D. from the College of Physicians and Surgeons of New York, March 1st, 1875, having previously attended one year at the Long Island College Hospital at Brooklyn, N. Y. He became a member of the Rhode Island Medical Society, in March, 1875. The following fall he commenced the practice of medicine in a village of Oswego County, N. Y., where he remained until April, 1878. On July 1st, 1878, he commenced practice in East Providence, R. I., where he remained until his death, September 22d, 1893. The cause of death was bronchial pneumonia.

Dr. Carpenter had at various times held quite a number of public offices, all of which he filled with credit to himself, and profit to his town and state. Among the positions which he held was School Committee, Superintendent of Public Schools, Health Officer, and for the past four years that of Medical Examiner for the district of East Providence.

Acne.— ℞ Zinc. sulph. . . . . .
Potass. sulphur . . . . . aa grs. v—xxx;
Aquæ rosæ, ... ℥i;
Sulphuris præcip. . . . . grs. xx—xi.—M.

Sig.—Apply to face three times a day.—*Dr G. T. Elliott.*

MORTALITY IN RHODE ISLAND, JUNE, 1893.

DEATHS REGISTERED IN NINETEEN CITIES AND TOWNS, AND REPORTED TO THE STATE REGISTRAR.

Whole Number Reported 429

SEX		PARENTAGE	
Males	238	Native	188
Females	191	Foreign	241

Principal Causes of Death.

Accidents, Various	9	Fever, Malarial	2
Abcess	4	" Typhoid	4
Apoplexy	13	Gastritis	3
Brain, Congestion of	7	Heart, Disease of	31
Bronchitis, Acute	18	Hœmorrhage	5
Cancer, Various	22	Hydrocephalus	2
Child Birth	3	Influenza	1
Cholera Infantum	20	Kidney, Bright's Disease of	14
Consumption	41	Liver, Disease of	3
Convulsions	9	Measles	14
Croup	5	Meningitis	8
Debility Infantile	10	Old Age	11
Diarrhœa	5	Pneumonia	39
Diphtheria	6	Scarlatina	17
Enteritis	9	Still-born	26

The *monthly* death-rate is 1.42+in every 1,000.

The *annual* death-rate upon the estimate given is 17.04 in every 1,000 of the population.

Still-born included.

JULY, 1893.

Accidents, Various	26	Fever, Typhoid	11
Apoplexy	19	Heart, Disease of	26
Appendicitis	2	Kidney, Disease of	21
Brain, Congestion of	9	Liver, Disease of	5
Bronchitis, Acute	6	Marasmus	8
Cancer, Various	14	Measles	6
Cholera Infantum	155	Meningitis	10
Cholera Morbus	3	Old Age	11
Consumption	50	Peritonitis	5
Debility	6	Pneumonia	26
Debility, Infantile	8	Scarlatina	15
Debility, Premature Birth	7	Stomach Disease	4
Diarrhœa	20	Tuberculosis	8
Diphtheria	6	Still-born	27
Enteritis	29		

The *monthly* death-rate is 1.92+in every 1,000.

The *annual* death-rate upon the estimate given is 23.04 in every 1,000 of the population

Still-born included.

According to the monthly return of deaths registered in the towns and reported

to this office, the mortality from diarrhœal diseases during the summer months of 1893, as compared with the mortality during the same months of the five preceding years, was as follows:

	1888.	1889.	1890.	1891.	1892.	1893.
Cholera Infantum	334	280	432	358	394	345
Cholera Morbus	39	22	24	11	20	15
Diarrhœa	50	61	44	39	38	42
Dysentery	55	43	68	33	23	5
Enteritis, Gastro and Colo	.	.	52	56	89	65
Total	478	406	620	497	564	472

AUGUST, 1893.

Accidents, Various	14	Fever, Malarial	2
Apoplexy	12	" Typhoid	11
Brain, Disease of	15	Gastritis	3
Bronchitis, Acute	10	Heart, Disease of	36
Cancer, Various	11	Kidney, Disease of	12
Cholera Infantum	170	Liver, Disease of	8
Cholera Morbus	12	Marasmus	13
Consumption	45	Measles	1
Convulsions	10	Meningitis	9
Debility, Infantile	9	Old Age	20
Debility, Premature Birth	7	Peritonitis	8
Diarrhœa	22	Pneumonia	9
Diphtheria	6	Scarlatina	9
Dysentery	5	Stomach Disease	5
Enteritis	25	Tuberculosis	6
Entero Colitis	2	Still-born	15

The towns making returns represent an estimated population of 330,248.

The *monthly* death-rate is 1.90+in every 1,000.

The *annual* death-rate upon the estimate given is 22.80 in every 1,000 of the population.

Still-born included.

NOT IN IT.

He has no enemies, you say.
My friend, your boast is poor.
He who hath mingled in the fray
Of duty that the brave endure
Must have made foes.
If he has none,
Small is the work that he has done.
He has hit no fraud upon the hip;
He has shook no cup from perjured lip;
He has never turned the wrong to right;
He has been a coward in the fight.

The R. I. Medical Science Monthly,

J. FREDERICK HALLER, A. B., M. D.,

MANAGING EDITOR,

To whom all communications to this Journal of any nature whatsoever, whether Letters, Exchanges, Books or Pamphlets for Review, or anything intended for the Editorial or Business Department should be addressed,

271 Washington Street, Providence, R. I., U. S. A.

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Books and monographs, native and foreign, on any of the Medical Sciences, will be reviewed without fail, according to their merits and the space at disposal.

Alterations in the proof involving an excessive amount of work, will be charged to authors at the rate of 60 cents an hour.

Contributors desiring Reprints or Extra Copies of the Monthly can obtain them at reasonable rates by application immediately upon the acceptance of the article.

"The local journal should be first and uppermost in every doctor's affections, and should have his good will and generous support.

"Contributions to its pages should be made often and brief; but it should be the bounden duty of every one to at least once a year make his offering in this channel.

"The subscription price of the local journal should never be allowed to run over, for there is never a time when the local journalist is not doing more for his profession than it is doing for him. The largest weeklies should occupy the second position"—*Dr. J. C. Culbertson at Milwaukee, June, 1893.*

ONE of the saddest tragedies in which a deranged crank acted as *dramatis personæ* is the recent assassination of Mayor Harrison of Chicago.

The Post says:

"It is surely high time that mentally deranged, irresponsible creatures, such as this latest assassin appears to be, should be kept under close and more constant surveillance. People have for too long been accustomed to think of the dangerous crank as merely a subject for mirth. The tragedy in Chicago shows only too plainly

that at any moment madness may impel one of these living menaces, for some fancied slight, to enter upon the work of the assassin. We sincerely hope the terrible tragedy will put an end to the easy, foolish tolerance on the part of those entrusted with official responsibilities, which more than once or twice has needlessly invited peril."

and the *Herald* has this to say:

"It is not an altogether lovely or admirably character that Mayor Harrison presents; but, with all his faults, it may be said that his influence and his work have formed no small element in the marvellous development of that extraordinary city."

We feel precisely as the *Post* does.

As we go to press, the sad news reach us that our esteemed colleague Dr. Charles H. Fisher, Secretary of the State Board of Health, has passed away. He contracted a severe cold while in Chicago, attending the World's Fair, which developed into pneumonia and he died at Buffalo, N. Y., on his way home. We will speak of his life and labors in another issue. The last few months have dealt hard blows to the medical profession in Rhode Island and many prominent men have been taken from us, Fillmore, Greely, Parsons, Hutchinson, Carpenter and Fisher.

"There's nothing terrible in death;
'Tis but to cast our robes away,
And sleep at night without a breath
To break repose till dawn of day."

—*Montgomery.*

During the recent financial difficulties many banking houses, considered to be of good standing, were obliged to suspend operations. The publishers of the Monthly had money deposited with some of them and we are sorry to say that those funds are now tied up for three years to come. This will probably explain why we were obliged to call upon our friends and subscribers for a little assistance, and many have responded most generously. "A friend in need is a friend indeed," and we wish to express our sincere thanks to all who have sent in their subscriptions and checks for advertising so promptly and generously. When we began publishing this journal, we were fully aware of the risks and difficulties before us. What has troubled us the most, has been, to find out just what was wanted by the profession, for some like to have their papers and discussions at society meetings and elsewhere reported correctly and in full, as we have tried to do, where permitted to do so, and other practitioners, though they are few, do not care to appear in print, and have even been abusive and ungentlemanly if we have dared to mention them at all.

We have tried to treat all with fairness and have submitted papers and remarks to each individual for correction before putting it in print,

when it has been possible. We have endeavored to learn the wishes of the majority of the profession and have tried to cater to them, and yet, every one knows that it is impossible to avoid stepping on a tender corn here and there. Never before did we know that we had so many friends as when we sent out those circulars, and for the many subscriptions and words of good cheer received, we are profoundly thankful.

OUR CORNER.

Abuse of Medical Charities.—The British Medical Association has inaugurated a determined fight against the abuse of medical charities in Great Britain, and as a means to that end its committee recommends (1) that a wage-limit be established above which income persons applying for treatment will be required to pay fees; and (2) that the hospitals and dispensaries have displayed in a conspicuous place within their precincts a placard bearing the following inscription: "This institution being established to relieve only those persons who are too poor to pay for suitable medical and surgical aid, notice is hereby given that on and after this date patients will be required to give information as to their means and circumstances, with a view to prevent the abuse of this charity by persons who are able to pay."

A New Diagnostic Sign of Typhoid Fever.—Every physician has to treat many cases of continued fever, in which for days and perhaps weeks no positive sign of typhoid fever is developed, but which ultimately prove to be that disease Any symptom that will aid in a diagnosis, especially in the first week of the disease should be welcomed. Dr. Simon Baruch in the New York *Medical Journal* for Sept. 2, 1893, gives a new symptom as follows:

"So soon as a patient shows a rectal temperature above 102.5° in the morning and 103° in the evening for three successive days, especially if accompanied by headache, dulness, or apathy, he is placed into a full bath at 90°, which is reduced to 80°, with constant friction over the body. In three hours, the temperature still being above 102.5°, he receives another bath five degrees cooler. This is repeated until the temperature of the bath is 75°. If one or more of these baths fail to reduce the rectal temperature two degrees in half an hour, the diagnosis of typhoid fever is almost certain."

The point which he wishes to make emphatic is that the resistance of the rectal temperature to a bath of 75° for fifteen minutes with friction is an almost certain test of typhoid fever.

Heart Failure.—In an article by Dr. J. W. Maddin, published in the Nashville Journal of *Medicine and Surgery*, for September, the following conclusions are arrived at:

"Whatever produces unhealthy structure of nerve fibre, nerve cells, or nerve ganglia, or the tissues to which they are distributed and upon which they act, preventing normal impulses, which regulate automatic and reflex movement, such causes as reside in errors of healthy sanguification producing degeneration of tissue, especially heart tissue, or tissue of blood vessels which nourish the heart, are potent factors of heart failure.

Whatever stimuli, mechanical tumors, abnormal elements of the blood, chemical poisons, or other causes which produce pressure or undue irritation upon nerve tracts, nerve cells or ganglia of the heart, impairing healthy metabolism and normal impulse, are causes of heart failure.

High temperature of the atmosphere, combined with conditions predisposing to sunstroke from without the body, or high temperature of the body from fevers, producing *heat stroke* from within, paralyzing sympathetic and vaso-motor power, determining blood flow to the cavities of the body, and giving full play to the inhibiting power of the vagus, will slow, still and stop the heart action.

Finally, whatever of the nature of shock, whether from a blow without the body, or equally, through a subtle blow to the emotional nerve centers of the brain, whether through grief or fear, or anger, or other emotion which produces molecular change in the axial cylinder of nerves leading from end organs of the body or from emotional brain centers through the medulla oblongata where these fibres, cerebral, vaso-motor, sympathetic, and inhibitory—commingle will by paralysis produce that most sudden, irremediable and quickly fatal of all heart failures."

FUN, FORTUNE AND FORMULÆ.

If our readers will kindly remember to mention the Monthly, when corresponding with its advertisers, it will be appreciated by them, while, at the same time, you will confer a favor upon us.

We all know the value of out-door exercise, some of our most aggravating nervous cases, especially in the female, have been helped by the Bicycle. Columbia Bicycle riding is a pleasant, comfortable, nerve quieting exercise. See ad. of Providence Cycle Co. in this number.

In the early stages of felon, saturate absorbent cotton with tincture of lobelia, and apply locally as a compress. It will relieve the pain and many times prevent suppuration.

At this season of the year every one is thinking about heating his house or office. If you think of using a furnace, call upon or write to A. J. Magoon & Co., about The Home, they can save you money.

A Successful Remedy in Treating Obesity.—By A. Sandford, M. D., Everett, Mass.—For several years I have been on the lookout for some preparation which would reduce flesh without injuring the general health, but have never succeeded in finding one. Several weeks ago, however, I received a pamphlet, on the action of Phytoline (the active principle of the berries of Phytolacca Decandra) in obesity, and about that time a patient applied to me for a reduction in her weight. I prescribed Phytoline, and directed her to take ten drops before and after the three daily meals. She has now taken about two weeks' treatment, and tells me to-day that she has lost fifteen pounds, and that too, without making any change in her diet, or affecting her general health. I am pleased with the results, and can conscienciously recommend it.—*Extract From Medical Brief.*

For ringworm, paint with a saturated solution of salicylic acid in Collodion. One painting is said to be enough.

LITERARY REVIEW—BOOKS RECENTLY PUBLISHED.

BOOKS AND PAMPHLETS RECEIVED.

Excerpta Medica by Eugen Graetzer, Sprottau, Switzerland.

First Annual Report of St. Joseph's Hospital, Providence, R. I.

The Monthly Bulletin, R. I. State Board of Health.

International Clinics, Lea Brothers & Co. of Philadelphia, Pa.

Tetra-Ethyl-Ammonium by Frederick Peterson, M. D., New York city.

Some New Chemical Researches into Cod Liver Oil, by F. P. Möller, Ph. D., London.

Essentials of Minor Surgery Bandaging and Venereal Diseases, by Edward Martin. A. M., M. D.

NEW BOOKS.

American Text Book of Gynecology.—Mr. W. B. Saunders, Publisher, of Philadelphia, Pa., announces this work as ready for early issue. It is the joint work of Drs. Howard Kelley, Pryor, Byford, Baldy, Tuttle, and others who stand before the profession for all that is progressive in gynecology. The work will contain operations not before described in any other book—notably ablation of fibroid uterus. It is designed as a profusely illustrated reference book for the practitioner, and every practical detail of treatment is precisely stated. This popular house has a number of new books about ready, notable among which are: "American Text-Book of Diseases of Children" and "American Text-Book of Surgery," which we will further mention in future issues.

Finances.—One of our leading physicians, who is noted for a vein of dry humor and wit, as well as his attainments in medical science, related the following, which is quite apropos in these times of bank suspensions and scarcity of the circulating medium:

Seated in his office thinking seriously of the large accumulation on the debit side of his ledger, without appropriate entries on the other side, there entered a dusky daughter of Africa, and the following conversation took place:

Dinah—Doctor, I've come to see if yer can't do somethin' for this swellin'.

Doctor—Does it give you any pain? Does it hurt you any?

Dinah—Oh! No, sir, it don't hurt at all. I'm jest gettin' all swelled up here (putting her hands on the lower part of her abdomen); an I think I can feel somethin' movin' round in dar.

Doctor—Well, er, what is the state of your *finances?*

Dinah—Oh! Dey's done all stopped; haben't seed nuffin' of 'em for five or six months.—*Southern Practitioner.*

℞ Olei cadini . . . . . ℥ss;
Chrysarobini . . . . . gr. xx;
Unguent. zinci oxidi . . . . . ℥i.—M.

For chronic excema and psoriasis.—*Shoemaker.*

To all new subscribers the Monthly will be sent the remainder of 1893, free.

THE R. I. MEDICAL SCIENCE MONTHLY,

A MONTHLY REVIEW OF REFORM AND PROGRESS IN THE MEDICAL SCIENCES.

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VOL. I. NOVEMBER, 1893. NO. 11.

PHLYCTENULAR CONJUNCTIVITIS, WITH SPECIAL REFERENCE TO THE PATHOLOGY AND PROPHYLAXIS OF THE DISEASE.

By LOUIS J. LAUTENBACH, A. M., M. D., Ph. D., PHILADELPHIA,

SURGEON TO THE PENNSYLVANIA EYE AND EAR INFIRMARY; CHIEF OF THE EYE CLINIC OF THE GERMAN HOSPITAL, ETC.

READ BEFORE THE NORTHERN MEDICAL SOCIETY, OCTOBER 27, 1893.

THE study of phlyctenular conjunctivitis is as important to the general practitioner as to the specialist. It is one of those infections which are peculiarly interesting to us because the knowledge of general and special medicine is here so intimately interwoven. He who would study it through the eye alone must fall into many a pitfall, while he who devotes himself to the systemic cachexia will find that he has failed to realize the gravity and seriousness of the affection, and will, in consequence, not give as ready or as permanent relief as he otherwise would.

By phlyctenular conjunctivitis I refer to an affection of the conjunctiva, of the cornea and of the corneal-conjunctival juncture, involving one or all. I include the corneal affection under this head, as the epithelial layer of the cornea is but the continuation of the similar layer of the conjunctiva and may thus be considered as an extension of it, and it is immediately under this layer that the phlyctenulæ make their appearance. It has been termed phlyctenular conjunctivitis, lymphatic conjunctivitis, vesicular conjunctivitis, scrofulous conjunctivitis, strumous conjunctivitis, exanthematous or eczematous conjunctivitis, herpes conjunctiva, phlyctenular ophthalmia, and phlyctenularkerato-conjunctivitis.

Perhaps the choice of names lies between phlyctenularkerato-conjunctivitis and phlyctenular conjunctivitis (retaining the term phlyctenular because of its almost universal use). I have in this paper adopted the latter because of the continuity of tissue referred to above and because of the brevity of the term.

It differs from all other conjunctival inflammations in the fact that the disease is local and focal, and not a diffused inflammation.

The eruption is not, as is usually supposed, a vesicle, but is a solid but soft projection of the epithelial layer, and is occasioned by an aggregation of lymphoid cells about a terminal nerve fibre of the cornea or conjunctiva. (*Iwanoff*). Clinically, to support this investigation of *Iwanoff*, we have the facts that the blepharospasm, the epiphora, the sticking pain, the photophobia, all can appear and be present for several days without the conjunctiva showing any inflammatory symptoms; then the conjunctival injection appears to be followed by the lymphoid elevation.

The characteristic lesion of the disease is the lymphoid nodule. Of these there may be few or many; they may be situated in the bulbar conjunctiva or the limbus or in the conjunctival layer of the cornea. Before this nodule makes its appearance, there will be observed a conical group of vessels, and at the apex will appear a slight elevation; then the nodule forms and on the top of it a grayish spot appears; this spot will drop off and in a day or two the nodule will melt away, leaving an ulcer. This ulcer, if in the conjunctiva, usually heals rapidly and the scar soon disappears, or it may extend downwards and occasion an episcleritis. When the cornea is involved, it will follow much the same course, except that if the parenchyma of the cornea be affected, it will leave a macula or even a leucoma.

Some cases go on even to perforation of the cornea and to prolapse of the iris; others again take on themselves the characteristics of serpiginous ulceration and may extend clear across the cornea. The most noticeable symptoms are intolerance of light, profuse lacrymation, spasms of the lids (these symptoms are the reflex symptoms from irritation of the corneal and conjunctival nerves), pain, of the nature usually of a ciliary neuralgia (this is always worse when the cornea is affected). These symptoms are usually followed by a local conjunctival congestion of a triangular shape, which soon has developed at its apex one or more nodules; with the appearance of these nodules the signs of irritation generally disappear. There are usually successive crops of these nodules. The photophobia is often disproportionate to the number of nodules developed and is especially marked in scrofulous children.

While met with at any time of life, it is essentially a disease of childhood, occurring but rarely before the second year, and is quite uncommon in adults. That the disease is a very frequent one in children we all know by experience. *T. Wharton Jones* (Med. and Surg. Ophthalmology, 1856, p. 138), says that "of 100 cas[illegible]hthalmi[illegible]t that time of life (1 to 12 years), it has been estimat[illegible] this kind." *Beer* (Lehre, vol. i, p. 588), states that [illegible]e usual eye

inflammations in children in Vienna are strumous. *Benedict* (Handbuch, vol. ii, p. 165), says, "Of 100 cases of ophthalmia in children, 95 or more are scrofulous." *Grimfeld* (Augenheilkunde, 1874, p. 47,) says, "By far the greater majority of cases occur between the second and tenth year, and after the twenty-fifth year it is a very great rarity." *Fuchs* (Ophthalmology, 1892, p. 89,) says, "It is one of the most frequent of eye diseases and has its origin in the scrofulous diathesis. Like the latter it is a disease of childhood and youth. In very young children—those under the age of one year—it occurs but seldom and generally ceases as puberty approaches. Adults are attacked with it only if they have carried the disease along with them from childhood." *Schmidt-Rimpler* (Ophthalmology and Ophthalmoscopy, 1889, p. 351), "The disease occurs chiefly in children, scrofulous children furnishing the main contingent." *Dr. Schweinitz*, Ophthalmol. 1892, (p. 253,) says, "It furnishes the greater number of ulcers of the cornea that are found in early life." The disease is met with more commonly in damp, wet climates with changeable temperature; it is more common in malarial sections and at certain periods of the year—spring and fall.

Perhaps it is most frequently found in connection with the scrofulous diathesis as portrayed in enlarged lymphatics, in scrofulous catarrhs of the nose, pharynx and larynx, swellings of the wings of the nose and of the upper lip, and later on in bone affections, in fact, in feeble children of a scrofulous habit and of a highly nervous and excitable temperament. By far the greater number of children affected with phlyctenular conjunctivitis belong to the poorer classes, they are the insufficiently nourished and improperly clad, those living an indoor life and surrounded by dirt, dampness and darkness. Their rooms are not ventilated, and have little or no sunlight, their carpets, clothing, furniture, etc., are not clean; they either don't wear underwear or it is a cheap cotton garment. As for food, these children are usually fed on bread, potatoes and sweets, all foods that easily undergo fermentation. Again, their food is often insufficient. They are actually often starving. Again, children who have suffered from exhausting diseases such as typhoid fever, scarlet fever, small pox, whooping cough and measles, are prone to be thus affected upon their recovery. Children are seldom attacked before the second year, as previous to this time their food is usually limited to the mother's milk, and because mothers of the poorer classes usually bestow more attention on their children at this time than at any subsequent period. They are more careful as to their clothing, cleanliness and the nature and quantity of their food. Sometimes as an exciting cause we find foreign bodies of the cornea or of the conjunctiva.

Stellwag believes that local irritants acting upon the ciliary nerves may give rise to it: as for instance, the premature and excessive use of

strong astringent collyria in some cases of conjunctiva, while the irritation of the eye is still very great. The irritation may also be propagated from other branches of the 5th to the ciliary nerves, as in cases of eczema, impetigo of the cheek, the mucous membrane of the nose, etc. Another exciting cause is ciliary irritation from imperfect refraction, almost invariably from the want of proper correction of astigmatic refraction.

Now, seeing that we have fairly entered upon the subject, it is perhaps as well to inquire as to the nature of this affection. Is it a separate and distinct disease, or is it but the manifestation of other conditions?

The scrofulous, the tubercular and the strumous diathesis are attended, as we all know, by contracted lymph channels. In fact, contracted lymph channels are found not only in these cases, but are attendants upon nearly all dyscrasic conditions—congenital syphilis, prolonged mal-nutrition, prolonged exposure to cold and dampness, prolonged bodily exhaustion from overwork, or as occasioned by some severe illness. All seem to be attended by a gradual lessening of the calibre of the minute lymph channels, giving rise in many cases to types akin to the scrofulous or more properly the lymphatic. In these cases the lymph channels, being smaller than normal, any slight irritation to the corneal or conjunctival nerves, occasions an increase in the number of leucocytes traveling through them, causing them to become obstructed, whereas were they of normal size, their circulation would be normal. These lymph channels being obstructed, we have produced by pressure upon the enveloped nerve terminals, the phenomenon of epiphora, photophobia, ciliary pain and blephorospasm; these symptoms existing before the appearance of any injection or swelling.

As these lymph spaces become more occluded, an increasing number of leucocytes are deposited back of the obstruction and thus the pressure and swelling being increased, the epithelium becomes raised and is attended by conjunctival injection, and, as the nodule increases in size, the injection becomes more marked.

When the swelling has reached its acme, the top of the nodule breaks down, the mass of lymphoid cells are discharged, the nerve is relieved of the pressure upon it and the symptoms of pain, epiphora, photophobia and blephorospasm disappear while the injection remains. Bearing in mind the constitutional conditions which cause the narrowing of the lymph channels, it is now for us to consider what may occasion an increased circulation in these spaces, or in other words, the usual exciting causes. Any condition that will reflexly or directly occasion irritation of the corneal or conjunctival nerves will bri[illegible]s increased circulation. These conditions are numero[illegible]n an injury or a foreign body in the eye to the most c[illegible]

Many consider eczema, impetigo, lupus, erysipelas, nasal catarrh, suppurative otitis, errors of refraction, etc., as the cause of the disease; any of these may be the source from which the reflex irritation originates; indeed it is rare that a case of phlyctenular disease exists without having one or more of these conditions present. This is, however, no proof of a causal relation. It might be as well urged and with even more reason that some of these, notably facial eczema and impetigo and nasal catarrh (usually of the strumous variety) are occasioned by the same causes that produce the phlyctenulæ. In fact, in many of these cases, this does not admit of question, being especially true of some cases of eczema attended by severe itching, the eczematous papulæ being situated about a dermal nerve ending, appearing in crops, the successive series coincident with the several series of ocular nodules and subsiding with the exit of the same.

Nasal affections exist frequently with this disease; indeed, nasal troubles in children are very common and are almost invariably present in these cases. It is in the strumous and scrofulous child, the child with the low vitality, where the mucous membranes are sensitive to all the morbid influences, that slight changes in temperature or an increase of humidity or a lack of fresh air so often produce morbid conditions in the nasal mucous membranes. The nasal affections, noticeable in connection with phlyctenular conjunctivitis, are almost invariably attended with an acrid discharge. They do not seem to be simple catarrhs, but should rather be termed strumous catarrhs. While undoubtedly nasal conditions can be, and often are the determining factors, there is no reason for the belief that the local trouble is, either by continuity or contiguity often, if ever, the cause of phlyctenular conjunctivitis. When it is the determining factor, it occasions it in one of two ways, either by reflex irritation transmitted from the nose, by way of the Gasserean ganglion, or by the carrying of morbid nasal products directly to the cornea and conjunctiva through uncleanliness, and this in turn bringing about the papular disease.

Again, by many, indigestion and intestinal disorders are given as a cause, but it is here, as in herpes vulgaris, that the attack of indigestion is likely the determining factor, through reflex action.

The results brought about by this disease are usually disproportionate to the symptoms present. *Fuch's* (Diseases of the Eye, 1892, p. 88) says, "The prognosis of conjunctivitis lymphatica is favorable in so far as the eye is but rarely rendered entirely blind by it." In most cases there is entire recovery, the phlyctenule disappears, the congestion dies out gradually, the conjunctiva and cornea become normal. Occasionally the conjunctival inflammation extending, the subconjunctival tissues are affected, a stubborn episcleritis results, or it may involve

not only the epithelial layer of the cornea, but also Bowman's membrane and leave a macula, or extending deep down into the parenchyma forms a corneal ulcer, which may, as it heals, leave a dense opacity (leucoma), or may perforate the cornea and even involve the iris occasioning prolapse or an iritis and destroy the sight. Fortunately, however, this is a very rare condition.

Phlyctenular pannus is a result occasionally seen; here there has been a new formation of tissue on the corneal surface.

The corneal ulcers may assume a serpiginous character, creeping along the cornea, blood vessels developing upon the corneal surface, following in the path of the ulcer. This vascular fasciculus (*Fischer*) may remain for a long time, the vessels gradually disappearing and leaving permanently behind, a long drawn out opacity of the cornea, which interferes very much with vision.

Coming now to the question of the treatment, which is perhaps next to the prevention, the most important part of our subject, we find that this must be directed to the following points:

1st. To diminish the irritability of the eye.
2nd. The prevention of the graver complications.
3rd. To hasten the absorption of the phlyctenulæ.
4th. The prevention of a relapse.
5th. To facilitate and assist in the regeneration of the corneal tissue.
6th. To improve the general health and build up the constitution.

To diminish the irritability of the eye, the first thing to be done is to use atropia locally; this will, by dulling the sensibility of the corneal and conjunctival nerves, allay the photophobia and blepharospasm, and, in addition, will paralyze the ciliary muscles and thus keep the eye at rest. In some cases, where the nodules on the cornea are large and coalescing, eserine is valuable, (*H. W. Williams*, Boston Med. and Surg. Jour., Mch., 1878).

As soon as the phlyctenulæ appear, calomel dusted on the lower lid, is indicated; it occasions the breaking down of the nodule more quickly, and thus, relieving the pressure on the parts, prevents the destruction of tissue and so avoids the graver complications. The use of hot water, bathing the eyes with it every hour, or, in severe cases, every one-half hour, is advantageous, as it lessens the irritability as well as hastens the advent of the healing process.

When the irritability has been lessened and the phlyctenulæ have commenced to break down, the yellow oxide of mercury is to be used to hasten its absorption. The yellow oxide is to be used in the proportion of 1 grain or 2 grains to the drachm of albolene, and in order to produce a perfectly smooth salve, should be first rubbed up with a few drops of olive oil.

The continuous use of a weak solution of atropia, the early use of calomel and of hot water, and the after continuous use of yellow oxide of mercury, are the best local means of preventing relapse.

To facilitate and assist in the regeneration of corneal tissue, attention to the general health is of the utmost importance. In addition to this, in cases of severe corneal ulceration, ice placed on the eye for a few minutes, or the dropping of ice water between the lids, to be followed afterwards by the fixation of the lids for a period of several hours (the eye of course being under the influence of atropine) is of the greatest advantage.

The improvement of the general health and the building up of the constitution is of paramount importance. Not only must we take into account the dyscrasic condition present, but we must endeavor in every way to make healthy every part of the body affected, whether this be the stomach or intestines, the nose or ears, or the skin. Every possible source of irritation must be inquired into, and when discovered must be relieved. Not only must the entire cephalic mucous membrane be explored, but every other mucous membrane as well, even the presence of bronchical affections interfering very much with the treatment. This condition of perfect health is to be obtained not only by the medicinal treatment of all abnormal tissues, but also by insistance upon a regular, perfect performance of all bodily functions. In other words, our treatment must be not only medicinal, but hygienic. The patient must be carefully cleansed and bathed, hot baths (preferably salt baths) are to be used nightly upon retiring; the clothing should be sufficient but not excessive; pure wool should invariably be the material of the garment adjoining the skin.

Food should be nutritious and in sufficient quantity, taken regularly three or four times a day. Tea, coffee, potatoes, starchy and fried foods are to be avoided. Milk, eggs, beef and mutton with celery, onions, peas and beans should, in the main, be the basis of the meals. The quantity of food should not be excessive. If the stomach be disordered, a purge, of rhubarb and jalap, or calomel and podophyllin, or of calomel cum-creta, should be used.

The patient should obtain plenty of exercise, fresh air and sunlight. He should spend several hours a day in the fresh air, at play, if possible; his living and sleeping rooms should be dry and well ventilated; any dampness in the house should be corrected; the cellar should be dry; one or more of the house walls should be exposed to the sun and the windows should be opened to admit of the light and air.

Whenever possible, children suffering with this disease should be sent to the country, mountains, or seashore, or among the poorer classes, removal to the hospital should be advised. *Connor* (Journal American

Medical Association, vol. 21, p. 559.) says, "The best treatment of many cases of phlyctenular disease of the conjunctiva or cornea is a residence in a well conducted children's hospital," and further he says that cases frequently relapse on their return home.

In this connection, I may refer to a boy 6 years old, who has been troubled for over three years with phlyctenular disease, for which he has been treated by many specialists, in many dispensaries and in many cities. I saw him about Oct. 1, 1893, when he presented on the left cornea a serpiginous ulcer (extending across its entire width) and involving the parenchyma, in fact at one point destroying all the tissues except Descemet's membrane which began to protrude. Finding that he could not be properly treated at home, I sent him to the Mary Drexel Home, where he has been taken care of by *Dr. Geo. Friebis*, from whom I received Oct. 25, 1893, the following report: "The boy is doing admirably, in fact is almost entirely restored, though a large leucoma central marks the site of the former quite large corneal ulcer. The treatment was hygienic with the following therapeusis, viz:—atropine, ung. hydrarg. oxid. flav. and pil. hydrarg. biniod. as indicated."

In the way of internal medicine, cod liver oil is perhaps the most universally applicable and is especially useful in cases of a strumous origin. In these cases the syr. ferri iod. and syr. of the hypophosphites are also particularly valuable. In cases of a marked neurotic character, arsenic is perhaps most useful. If the skin be sluggish, pilocarpine with the alkalies is to be used. Tr. ferri chlor. is a medicine that will frequently prove of value. In fact, the plan of treatment to be followed is to endeavor to repair, wherever repairs are necessary, and to oil the parts wherever there appears to be any friction.

Now, what is to be gained by our study? We have learned something of its cause and treatment. As before suggested there is one thing more important, viz: prevention.

That these cases can almost invariably be prevented will seem evident to all who have paid much attention to the etiology of the disease.

By proper attention to the dwelling places of the young, to their clothing and food, and insistence upon fresh air and exercise, and the correction and alleviation of all congenital or acquired defects, and the correction of all local disorders, on their first appearance, few, indeed, will be the cases of phlyctenular conjunctivitis presenting themselves to the specialist or to the general practitioner. This great hygienic work is mainly for the general practitioner, with the assistance of the philanthrophist, aided occasionally by the hand of the specialist.

The conclusions may be summarized as follows:

1st. Phlyctenular conjunctivitis is essentially a disease of children.

2d. It occasions fully 75 per cent. of all the eye affections occurring between the second and twelfth year.

3d. The cause of the affection exists in the general physical condition, having some local irritation as a determining factor.

4th. The treatment consists not only in an alleviation of the symptoms of the disease but in a restoration of the general health and the removal of all local inflammatory processes.

5th. It is almost invariably prevented by the adoption of proper hygienic and dietetic measures, of course taking into account any constitutional conditions that may be discovered.

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THE IMPORTANCE OF EARLY ATTENTION TO THE DISABILITY CAUSED BY INFANTILE PARALYSIS.

BY A. B. JUDSON, M. D., READ BEFORE THE NEW YORK ACADEMY OF MEDICINE, NOVEMBER 2, 1893.

I PROPOSE to consider briefly the question whether a certain class of patients should not be committed more entirely and more early than they are to the care of the orthopedic surgeon, a consideration as interesting to the family physician as to the orthopedist, as they meet in a friendly alliance to secure the greatest benefit for their common patient.

I refer to patients disabled by infantile paralysis. The child has passed through the stage of onset. Ergot, electricity and massage have produced their legitimate effect, and we will say that the eighteen months, which are believed to be the limit of spontaneous recovery from the paralysis, are passed. The friends and the patient, with many grievous misgivings, have become reconciled, or at least accustomed, to disability and deformity which now seem to change for neither the better nor the worse. What can now be done? The question whether such a patient may not yet receive benefit from the advance of scientific knowledge, or from the daily increasing facilities for the application of knowledge, will surely spring up in the parental heart.

Now it is curious to note that the deformity in these cases is often found, upon analysis, to be a disability more than a deformity. Take a case, for example, in which the knee cannot be completely extended. When the patient is sitting there is no deformity, but when he stands the apparent deformity is due to a disability—an inability to extend the knee. How easy it would have been to prevent contraction of the hamstrings by providing for their repeated elongation by complete ex-

tension of the knee, easy, comparatively, for one who has given himself to such details and is habitually mindful of their importance and free from the manifold cares which beset the average practitioner. And it should be borne in mind that cases sometimes occur in which shortening of the tendons begins, in a manner not well understood, at a very early stage, before simple desuetude can be fairly accused of being the author of the mischief. The prevention of muscular and tendinous shortening then should receive attention on the part of the early observer of the case. It is not an obscure and difficult point, but one which has perhaps escaped the consideration to which it is entitled.

To recur to the disabled knee, and this part of the anatomy is used simply as a convenient example to illustrate points in pathology and treatment applicable to all the joints, if the knee is kept extended at those times when walking is attempted, not only are the muscles and tendons kept in normal elongation, but the general welfare of the limb is assured. Neglected patients may be seen in the streets walking laboriously with extension of the knee produced by the hand pressed firmly at every step on the lower part of the thigh when the weight of the body is on that limb. It is doubtful whether this in any case prevents the final resort to a crutch, by the use of which the limb is made to dangle, being carried about as a worse than useless burden, twining limp around the crutch, subject to the painful affections which attack the lower extremities in cold weather in the absence of healthy circulation, and more and more impeding locomotion until, as has happened many times, the adult patient seeks relief and improved locomotor ability in amputation and an artificial limb. If the knee is stiffened mechanically, the pressure of the weight of the body in standing and the repeated concussion of the limb, as the foot strikes the ground in walking and running, will improve the tardy circulation, but beyond this, and better than this, will be the development of unused muscular fibres and special groups of muscles, by whose action important motions will be acquired which would have been impossible, if the limb had remained in suspension.

Now in order to keep the knee firmly extended under the weight of the body in standing and walking, and to give use and development, as far as may be, to the fragmentary muscular system of the limb, apparatus is required; but it will not be obtained without authoritative medical advice and prescription, and, as a rule, the family physician cannot be expected to work out the tedious processes incident to treatment of this kind. It falls to the lot of the specialist, who can well bear the inconvenience attending final results which are more or less imperfect, after satisfying himself that he has done all that science permits to be done, and whose daily and hourly mastery of the necessary details has

enabled him to reduce perplexing and complicating conditions to familiar routine. Treatment of this kind lies far outside ordinary practice in which the physician renders such signal service. He makes his diagnosis, advises, prescribes, remains on guard against complications, foresees the crisis and prepares for it, leads the way cheerfully through convalescence; and medical science, so dear to us all, finds but another illustration of its power and beneficence. In one home a wasting fever has been finally resolved and the patient rises in perfect, or even improved health, from a bed where the grim alternative has been decided in his favor. In another the children have been happily carried through the perils of infection and resume their places at the table. But in the special practice adapted to the cases under consideration, there is no fear of a fatal result and no rejoicing, and the object sought is, at the best, a palliation. But who will say that important service has not been rendered? For it should be remembered that the conservative and plodding practitioner along this line has for an ally one of the most potent influences in Nature in the growth of the body. The popular reliance on this force, expressed in the common question,—"Will the child not outgrow the ailment?" whatever it may be, is not always misplaced. Happy the physician who, imparting his confidence to the patient's friends, and relying on the exact science of the physicist, sees grace and power growing out of deformity and helplessness.

A good general rule in the treatment of deformity in a growing child is to keep the part as near as possible in the desired shape as much of the time, day and night, as is practicable, so that the increment shall be on the right side of the dividing line between the normal and abnormal. The familiar proverb says, "As the twig is bent, the tree's inclined." In the troubles following infantile paralysis the principle should be extended. We should not only persist in keeping the part as near the normal shape as we can, but we should also give as wide play, as the crippled condition of the limb will allow, to the functions of motion and weight-bearing. From the very earliest attempt to walk, or to make use of the muscles and joints which are imperilled by the cord lesion, extraneous assistance should be afforded. It should not be said, off-hand, that the child is too young. The first and repeated question should be: Is the child not yet old enough, or is he not already giving sufficient evidence of a desire to make use of the questionable muscles and joints to make assistance desirable or necessary?

When efficient treatment is begun, it is easily continued. Improved ability is at once appreciated by both parent and child. It is well that such is the fact, for improvement does not stop with infancy or childhood. The process is slow and prosaic, but the benefit cannot be overestimated in the opinion of the one who is in the best position to judge

of its value. A slight improvement in the gait, or an ability to walk a little faster, or a little further without fatigue, confers lasting happiness, and the patient and physician are thus encouraged to go on to new achievements until, with one step after another gained, the outcome is an adult well able to follow the ordinary pursuits of life, in place of a being who had looked forward to hopeless dependence.

UMBILICAL HŒMORRHAGE, WITH REPORT OF A CASE.

READ BEFORE THE PROVIDENCE MEDICAL ASSOCIATION
BY E. B. HARVEY, A. M., M. D., PROVIDENCE, R. I.

ON Sunday, Sept. 17, 1893, I was called to attend Mrs. T——, in confinement. Patient was 23 years old, strong, healthy, well-developed, and a nullipara. Her husband also was in excellent health. After a normal and easy labor of short duration she gave birth to a male child, plump and apparently healthy, weighing 8 1-2 lbs. For the first three days nothing unusual happened, the baby seemed to be doing well, bowels moved daily, though the movements were small and constipated. Early Wednesday morning, the fourth day, I was summond to see the baby who was bleeding from the navel. On my arrival I found a slow continuous oozing from the base of the umbilical cord, which was readily arrested by hot water and compresses. Slight jaundice appeared, and there was no movement of the bowels that day, though laxatives were administered. In the evening the hœmorrhage started again, but was soon stopped by a hot solution of alum and firm compression.

On Thursday at 2.30 A.M. the hœmorrhage returned, more profuse than the previous ones. Monsel's solution and compresses saturated with the same were applied, and the hœmorrhage was soon checked. By Thursday morning the jaundice had become well-marked, and I first noticed purpuric spots about the face. The baby was feeble and exhausted but continued to nurse well. No movement of the bowels since Tuesday. Early in the afternoon the hœmorrhage returned for the fourth time, and proved rapidly fatal before my arrival.

My experience in the case reported, and the rare occurrance of umbilical hœmorrhage seemed to me sufficient reasons for

A BRIEF REVIEW OF THE SUBJECT.

Umbilical hœmorrhage from its great infrequency has not received the attention and study due to a malady of so great mortality, and its litereture is confined to the last forty years. There are only three cases on record before the year 1800, but since that time over 500 cases have

been reported. *Dr. Jenkins* in his paper written in 1858 says: "In the Foundling Hospital of Paris in 9,000 births there was only one case; in the Dublin Lying-in Hospital in 6,654 births there were no cases; in Emigrants' Refuge, Wards Island, in 2,000 births there were two cases; in the practice of *Dr. Chas. Hooker*, of New Haven, in 2879 births there was one case; in the practice of *Dr. Elisha Fearing*, of Nantucket, in 4000 births there was one case." That is, in the 24,533 births cited there were only five cases, or one in about 5,000 births. Since I began the preparation of this paper I have met three Providence physicians each of whom has had a case of umbilical hœmorrhage, so I am inclined to think that it occurs oftener then the above statistics would show.

CAUSES.

Violent traction on the cord, particularly when short or wound around the child's neck, bad ligaturing, inflammation or an ossified state of the umbilical vessels, hœmorrhagic diathesis, hereditary syphilis may all be mentioned as causes of umbilical hœmorrhage. But the chief cause is the failure of the blood to coagulate, due to an accumulation of bile in the blood from obstruction or obliteration of the gall ducts or some derangement of the liver, the bile preventing coagulation by its destructive influence on the blood corpuscles and fibrin.

PATHOLOGY.

Obliteration or occlusion of the bile ducts is the most frequent pathological condition found at the autopsy. Of twenty-two autopsies reported by *Jenkins*, in 1858, the bile ducts were examined in eleven cases, and were found absent or impervious in seven cases. In a case reported by *Dr. W. H. Thayer* to the Brooklyn Pathological Society, in April, 1885, the lower half of the hepatic duct and the entire length of the common duct were found an imperforate cord the size of a coarse thread. By far the most valuable contribution to the pathology of umbilical hœmorrhage is the record of 100 post-mortems given in Keating's Encyclopædia of the Diseases of Children, in which the bile ducts were absent in twenty-five cases, in twenty-five they were open but there was an abnormal condition of the liver, in thirty the bile ducts were entirely obliterated, and their place occupied by a small quantity of areolar tissue, in fifteen the bile ducts were impervious, in ten there was fatty degeneration of the heart, liver and kidneys. That is, in all of the 100 collected cases there was some trouble in the liver, and in 70 per cent. the bile ducts were either impervious or absent.

SYMPTOMS.

Usually the first intimation we have of umbilical hœmorrhage is the

bloody appearance of the dressings over the umbilicus, and on closer examination we will see the blood oozing at the base of the umbilical cord. We may have a sudden, profuse and fatal hœmorrhage, as in the case reported by *Young*, in 1885, which ended fatally in twenty minutes, or like that reported by *Stephen Smith*, which proved fatal in one hour, or there may be a slow, continuous oozing, lasting several days, at last yielding to treatment or ending fatally. The average duration of the hœmorrhage in fatal cases is three and one-half days. It usually occurs at the time of or subsequent to the separation of the cord, the average time being the 8th day after birth, though it has occurred at all times from the 1st to the 60th day. Often there are other manifestations of the hœmorrhagic tendency, as purpuric spots, ecchymoses, hœmorrhages from the stomach, bowels, eyes, nose and gums. Jaundice is present in the majority of cases, often occurring several days before the hœmorrhage, and accompanied by constipation, clay colored stools and bilious urine.

THE PROGNOSIS

is unfavorable. The rate of mortality has been variously stated as from 76 to 84 per cent. When jaundice is present the prognosis is very bad, 93 per cent of such cases ending fatally, and the combination of jaundice and purpura hœmorrhagica is a sure precursor of certain death. Bloody stools would be an alarming symptom. The later the occurrence of the hœmorrhage the more favorable would be the prognosis. Umbilical hœmorrhage has occurred about twice as often in the male sex as in the female.

TREATMENT.

Compression, styptics, collodion, dry or moist plaster paris, caustics, the cautery, the ligature, and transfixion by needles together with the ligature, have all been employed for arresting umbilical hœmorrhage. As to compression and styptics, though they have been sufficient in some mild cases, they are not to be relied on. Caustics and the cautery are useless, as a recurrence of hœmorrhage usually follows the seperation of the slough. Ligation of the umbilicus en masse is effective in arresting the hœmorrhage, but is apt to cause extensive sloughing. Transfixion by strong needles with the application of the ligature is the surest means of controlling the hœmorrhage. The needles should be introduced transversely, deeply through the tissues, one above and the other below the umbilicus, and the figure of eight ligature applied around the end of the needles, or the needles may first be introduced so as to cross each other at right angles beneath the umbilicus, and then approximated and the figure of eight ligature applied. Another method suggested by *Dakin* consists in passing a needle through the abdominal

wall just below the umbilical depression, under the hypogastric arteries and out through the abdominal wall, and applying the figure of eight ligature. After four or five days the needles may be removed and an antiseptic dressing applied. But we must not stop with the local treatment. The mineral acids and the muriate of iron should be given internally to improve the condition of the blood; if there is constipation, laxatives, preferably calomel, should be given. In case of hereditary syphilis anti-syphilitics would be indicated.

Fl. extract ergot might act advantageously. Stimulants may be required to keep up the strength.

Obviously, when malformation of the liver or bile ducts exists as the underlying cause of the hœmorrhage, all treatment will prove futile.

535 Broad Street.

CHRONIC ENDOMETRITIS; TREATMENT BY DRAINAGE.

BY JACOB C. RUTHERFORD, M. D., OF PROVIDENCE, R. I.

ADJUNCT PROFESSOR OF OBSTETRICS AND DISEASES OF WOMEN IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF VERMONT.

THE conditions present in a case of chronic catarrhal inflammation of the endometrium are enlargement, softening, and congestion of the uterus, increased succulence of, and the growth of moss-like vegetations on, the uterine mucous membrane, thickening and congestion of the cervical mucous membrane, and not infrequently enlargement, thickening, congestion and dropsy of the tubes. The uterus is usually dislocated posteriorly, there is a congestion of all the pelvic organs, and a thick tenacious muco-purulent discharge from the uterine and cervical mucous membrane.

The general symptoms are lassitude, sleeplessness, loss of appetite constipation, pain in the sacral region, which is increased by walking, or driving, dragging pain in the abdomen, profuse painful menstruation (usually; although the flow may be scanty), and mental disturbance.

Examination through the speculum reveals a relaxation of the vagina, an ill-smelling leucorrheal discharge, erosion and eversion of the cervix, and retroversion of the uterus. With the sound we find the uterus enlarged and sensitive, and that the mucous membrane bleeds very easily. Occasionally digital examination reveals enlargement of one or both tubes, and tenderness of the ovaries.

The treatment usually adopted in such cases includes rest, tonics, laxatives, hot douches, thorough curetting, tampons bearing either glycerin, boroglyceride, glycerole of tannin, glycerine and iodine, or tinct-

ure of iodine, and in some cases it is deemed necessary to employ severer methods, such as cauterizing the uterine cavity with nitric acid or caustic potash. I have followed this plan of treatment for years with varying success, but usually the treatment had to be continued for a long time, the improvement was slow, discouraging alike to patient and physician, and I finally discarded it altogether and adopted a plan the basis of which is drainage. To illustrate, allow me to present one of a number of cases:

Mrs. X., twenty-six years of age, has been married nine years, and has borne one child now seven years old; she has had no miscarriages; she came to me complaining that for four years she had suffered with pain in her back and abdomen, leucorrhea, loss of appetite and strength, irritability of temper, and sleeplessness. Upon questioning her I learned that her bowels were constipated, moving once in three or four days; that she suffered so greatly at her menstrual periods that she was obliged to keep her bed three or four days; that the flow was profuse, lasting from seven to ten days, and that she frequently vomited her food. She was anemic and greatly emaciated. Examination showed the uterus enlarged (depth 3¼ inches); the cervix slightly lacerated, eroded and everted; the left tube was somewhat enlarged, the uterus and both ovaries extremely tender. The uterine mucous membrane bled freely, although I used great care in introducing the sound. There was also a profuse muco-purulent discharge from the uterus.

My treatment was as follows: The patient was ordered to bed and given a saline laxative. The next day she was etherized, the vagina thoroughly washed out with hot water, the cervix mopped out with hot 5 per cent. sodium bicarbonate solution and carefully dilated to the extent of an inch. The uterine cavity was then carefully washed with the hot soda solution, and gently curetted with a blunt curet. A large amount of fungus growth was removed, which caused considerable bleeding. The uterus was then filled with a strip of iodoform-gauze (cut ½ x 1 inch wide); a quantity of gauze was also left in the vagina around the cervix. The gauze was held in place by a dry cotton tampon. There was little pain following the operation, but slight uterine contractions caused some uneasiness, which was relieved by a mild anodyne. Forty-eight hours afterward the tampon and gauze were removed, the uterus and vagina washed with the soda solution and again packed as before. From the third day the patient was up and about her room and suffered no pain whatever. The tampon and gauze were renewed every forty-eight hours during the first week and every seventy-two hours during the second week, when treatment was interrupted by menstruation. To the patient's surprise she suffered very little during the menstrual period; the flow was greatly lessened

in amount and lasted but four days. Three days after menstruation I found the cervix contracted to nearly its former size, and I again dilated it. The dilatation was rendered almost painless by first applying the Faradic current—one pole in the cervix, the other on the abdomen—for about ten minutes, which softened the cervix and made it much more easily dilatable. The gauze was again introduced and allowed to remain forty-eight hours, when the patient removed it, gave herself a hot vaginal douche, and came again for treatment. From that time until she was discharged the gauze was introduced twice each week and allowed to remain forty-eight hours each time. At the end of five weeks of treatment I found the uterus normal in size, free from tenderness, no leucorrhea, and the enlargement in the left tube had disappeared.

She tells me now (four months afterwards) that she feels in every way better, that she is relieved of her constipation, that menstruation is normal, that appetite has returned, and that she sleeps as well as ever. She has also put on considerable flesh and her general appearance is greatly improved.

The advantages of this plan of treatment are, first, that it removes the danger of puncturing the uterine walls, always present when the sharp curet is used; second, it shortens the time the patient is under treatment; third, the gauze by its presence excites uterine contractions, which lessens the congestion, thereby assisting in reducing the enlarged uterus to the normal size; fourth, the gauze again, by its presence, brings about a thinning of the uterine discharge; and this, fifth, allows it to be drained off as fast as it is thrown out; sixth, as the muscular fibers of the uterus are continuous with those of the oviducts, contractions of the former must necessarily be accompanied by contractions of the latter, and hence any accumulation of mucous in the tube would be carried by that contraction to the uterus and drained off by the gauze; seventh, the cervix remains permanently dilated, which facilitates the flow of menstrual blood; eight, by draining off the contents of an enlarged tube, we do away, in many cases, with the necessity of celiotomy.

Many cases require curetting with a sharp instrument, owing to the presence in the uterus of fungous growths that cannot be otherwise removed, but the majority of cases will yield to drainage. Again, thorough curetting should not be undertaken by one inexperieneed in the operation, as there is danger that he may scrape away not only the mucous membrane and a part of the muscular wall, but that he may unconsciously perforate the wall and set up a fatal peritonitis.

When the cervical laceration is so extensive as to demand an operation for its repair, the treatment I have suggested will prepare the parts for the operation in less time and much more satisfactorily than the treatment by douches and medicated tampons.—*Medical News.*

PHARMACY.

THE YOUNG DRUG CLERK.

C. H. DAGGETT, Ph. G.

HOW different the young drug apprentice of to-day and the one of years ago. Then he worked hard, early and late, with none of the modern advantages. His learning was obtained from books which were found in the store and from his employer. In those times he could not work a year or two and then step behind a prescription counter and be competent to compound any prescription which might come his way, but had to persevere in his study until he was competent to do his work, without the aid of his employer. Now it is very different. The young man on first entering the store is started to work washing bottles, sweeping, etc.; but he soon rises to a higher and better place. He has the advantage of the help from the clerks in the store, valuable books which are kept in most of the stores, colleges of pharmacy, etc., but for all this, his work is many times hard and unpleasant, his compensation small, hours long, advancement not as rapid as he desires, he is the object at which both the physician and patient aim some very unpleasant remarks, and, on the whole, he often wishes he had chosen another vocation, where he might have risen faster and not have been burdened with so many unpleasant things.

The only way to success is to find employment in a first-class pharmacy; then apply yourself to work, whatever it may be, with care. Study what spare time you have and only the best books; watch the work and manipulations of the more experienced clerks. If possible, attend lectures at a college of pharmacy, and by applying yourself closely to study and work, you will attain what you desire. It is necessary also to have a good school education, to be cleanly in your habits, tasty in your dress, polite in your manners and pleasing to customers, to make a successful pharmacist.

A Good Alterative.—Dr. Clark, of Youngstown, O., furnishes the following formula to the *Medical Summary*:

℞ Syr. sarsaparilla comp.. . . . ℥ij;
Ext. burdock fld., ... ℥i;
Ext. taraxaci fld., ... ℥i;
Syr. acidi hydriodic, ... ℥iv.—M.

Sig. Teaspoonful in water three times a day.

GEOLOGY.

CORAL REEF FORMATIONS.

BY EDWARD F. GAMWELL.

MUCH of interest and importance attaches to the subject of coral reefs and islands. The interest arises from the facts that coral formations go on very quietly but very surely; that they add by degrees to existing land—Key West, Fla., for example—and that the formation itself is often very beautiful as a product of nature.

The coral polyp is the chief agent in coral reef formation. This animal, belonging to one of the lowest orders of animal life, is of soft, gelatinous, almost transparent tissue, and has the power of extracting from sea water carbonate of lime and secreting it. This it does so assiduously that a well developed animal shows a limestone deposit of from ninety to ninety-five per cent. of its whole weight. These coral polyps develop very rapidly, multiplying both by the process of "budding" and by eggs. They bind themselves together into large groups, and these groups, continuing to grow into "coral forests" and forming a trap, so to speak, for an enormous quantity of sea matter such as shells of mollusks, bones of fishes, etc., all capped by the living host of the present generation of sea life, a coral reef is formed. The process may go on almost indefinitely, molluscous and microscopic shells all the while being added to the mass. Thus reefs are formed, which, geologically considered, are of great importance. Islands constitute the next step in the process of coral formation.

A reef having once been formed, under right conditions an island may soon appear. The force of the waves breaking against the seaward side of the reef, sends masses of matter over to the leeward side, where, the water being quiet, these masses form a nucleus about which gather fragments as in the formation of a reef, the whole cemented together into solid limestone, a chemical change wrought by the action of the carbonate of lime in sea water. These islands are generally some twelve to fifteen feet high, and from a quarter to a half a mile wide. At first bare, they in time become covered with vegetation and even habitable. A good example of this coral process is seen in the numerous "keys" off the coast of Florida. Island after island thus formed from parent reefs, until continuous lines of land were made. The Florida reefs are, in fact, distinguished from other reefs in that they form continuous stretches of land, while other reefs do not closely associate, but maintain an individual existence. Generally in the case of

other reefs, such as barriers and atolls to be discussed later on, there is a loss of land through subsidence, for which loss only a partial compensation is made in the up-building process of coral matter. But in Florida there has been a firm advance of one hundred miles southward, and an addition of ten thousand square miles, at least, to the continent, all being due to the wonderful agency just described. Le Conte says that it is impossible to account for this unless we suppose some other agency at work preparing the ground for the growth of successive reefs. Thus the process of coral building goes on, manifesting itself in different ways as has already been seen, and as will be seen further in this paper.

Le Conte divides reefs into three classes: fringing, barrier and atoll, or circular reefs. Fringing reefs form in the tropical Pacific about every high island, attaching themselves to the outer shore at the proper depth of water and building outward, their presence being marked by the white breakers which surround the island. Barrier reefs, unlike fringing reefs, form at a distance of from ten to fifty miles from the island, their existence being indicated in the same manner as that of fringing reefs. Barrier reefs are of considerable importance, inasmuch as vessels out at sea may pass through them by an opening and may find a safe, retired harbor. Most notable of all reefs are the atolls, or circular reefs found out at sea. Here they stand, their presence being always marked by the white circle of waves that is produced by them. By soundings it has been found their interior slope is very gentle, while that on the exterior is quite steep. Geologists have given these reefs special study and have formed theories as to their origin. The old "crater theory" has been discredited by modern geologists, and it is not worthy of mention except as a matter which may be of curious interest. On this theory it was held that volcanoes had existed in the sea, and had become extinct, and that corals came to the ridges of the old volcano at a suitable depth of water and then began their building process. Various careful investigations have put this theory quite aside.

We now pass to the theories of Darwin, Murray and Semper, all of which theories are deserving of careful attention. Darwin's view, supported by our own American geologist Dana, is one which accounts for all three kinds of reefs on the theory of subsidence. That is, he claims that the sea bottom has been for ages subsiding; at a rate, however, not greater than that of the up-building process of the coral. Every reef, says he, begins as a fringing reef; subsidence, the sinking away of land, commenced, and in time the island about which the reef formed disappeared, a barrier reef being produced. The next step is that to the formation of an atoll through the continual building work of the coral. Here, then, subsidence is made to account for the fringing, barrier and

circular (atoll) reefs. There are evidences in support of this theory. Dredging has brought up trees and other matter once alive upon an island that has apparently sunk down into the sea. For another example, fringing reef rocks have been found clinging to the shores of high islands, thus showing that subsidence has been going on and that these rocks have been left wherever they could become fast. In the Pacific, also, large landless areas have been found in the midst of reef formations, this fact showing that subsidence has gone on so swiftly that corals could not form and so were drowned.

This view of Darwin and Dana is directly antagonized by Prof. Karl Semper, an eminent German geologist, who is pronounced in his conviction that coral reefs, atolls and all others, are due to upheavals of the sea bottom together with the action of ocean currents. In fact, he would attribute coral reefs solely to upheavals plus ocean currents. He believes that, in consequence of upheavals, a deposit is made upon the reef plateau, and that the corals begin and carry on their work in the processes previously indicated. Further, he thinks that it is a weak point in the theory of Darwin and Dana, that, while the subsidence is uniform in kind, the results are so far different at different localities. It is probable that both theories, that of Darwin and Dana on the one hand and that of Semper on the other, have truth in them, one accounting for reefs in one place, while the other accounts for reefs elsewhere.

Another doubter of Darwin and Dana is Murray, whose theory of coral reefs is that they are due in the first place to submarine banks which may exist in consequence of the accumulated matter of successive generations of pelagic life, or by the wearing down of volcanic cinder cones. On these banks, says he, the coral growth begins, building up more rapidly seaward where the impinging of the waves gives the necessary fresh supplies of oxygen to the corals. The action of the waves, according to his theory, thus conduces to the continual building up of the bank on the outside, while there is a dying away on the inside. Thus atolls are accounted for, constantly growing larger on Murray's theory because the constructing process is inevitable, and constantly growing smaller on Darwin's and Dana's theory, because subsidence continues. These are the main views which modern Geology presents concerning the question. The matter must be left open as yet as far as decision is concerned, but it is to be said that Darwin's view is the more general, though it cannot be said to obtain everywhere.

On the theory of subsidence it is estimated that probably several hundred thousand square miles of land have been lost. The actual extent of known atolls is fifty thousand square miles, but this is less, indeed, by far than the loss of high land, the area of an atoll always being less than the original base of a high island because its outer wall is not

perpendicular. The space between barriers represents a great loss of land. The great Australian barrier extends along the coast for a distance of one thousand and one hundred miles, and represents an area of lost land equal to thirty-three thousand square miles. Geologically considered, these changes are of great importance. The limestone rocks distributed over immense areas are thus known to be of organic origin, allied as they are to the coral polyp. If there has been this continual downward movement, it is believed that there has been a corresponding upward movement elsewhere on the earth, and Darwin thinks that this is found in the many elevations of the glacial epoch, and therefore that all this stupendous work has been done since the Tertiary. Another good authority thinks that the subsidence in the eastern parts of the world finds its antithesis in the upheavals of the western side of this continent, especially in the Rocky Mountain region.

Reef-building corals do not flourish everywhere. They must have favorable conditions, and will grow only where there is a winter temperature of about 70°, but exceptions are found in Florida and the Bahamas where they grow at much lower temperatures. There must also be a depth of water of not over one hundred feet, the water must be clear and salt, and free exposure to the action of the waves is necessary, as oxygen can be freshly supplied only by a continual change of water. Under right conditions, then, it is certain that this wonderful and mighty reef process will take place, and it must continue to be one of the most engaging fields of scientific study. The attention of geologists has been drawn and will continue to be drawn to this peculiar phenomenon, and it is not too much to expect that new, interesting and important discoveries are yet to be made in this connection.

A BRIEF HISTORY OF THE WINDHAM COUNTY, CONNECTICUT, MEDICAL SOCIETY.

BY J. FREDERICK HALLER, A. B., M. D.

THE records show, that this Society or Convention, as it was then called from the latin *Convenio*, was in full operation, September 24, 1793, and that Dr. John Clark was elected Chairman, and Dr. Thad. Clark Clerk, for the year ensuing.

The first meeting to be found on the records is the one held Sept. 1793, at Windham, but as this gives us no idea of the organization of the Society, we must suppose that it was organized previous to that date, probably in the same year as the Connecticut State Society. From the year 1793 we have an unbroken record of annual and special meetings

of the Society and as no authentic dates of any previous meetings can can be found, must assume, that the year 1793 marks the beginning of this venerable medical body. At the September meeting, 1793, five delegates were chosen to the State Medical Convention held at New Haven, in October the same year. We also learn that the tax to the Connecticut Medical Society was 3 d. for each member per annum.

In the records of these first meetings we read:

"Members of the Convention will give their Attendance punctually at half after ten o'clock A. M. on the Days Severally Appointed for holding said Meetings"

which shows that punctual attendance was required. And again we find this:

"Whenever any Case or Dissertation shall be called for by any two Members it shall be read a Second time and leave given for Members to make such remarks on each Case as they Shall think most likely to increase Medical knowledge."

In the records of the meeting of April, 1795, we find:

"That the Examination of Candidates be before the Convention in Public, except when the Committee Shall Determine otherwise."

At the meeting in Sept., 1795, this vote was taken:

"That the Clerk of this Meeting be Directed to give Public Notice, that any Persons laboring under any Uncommon or Troublesome Disease, may Receive Advice and Directions gratis, by applying to the Medical Convention at the above time and place."

Candidates were admitted upon examination as "Practitioners of Physic" in those times.

At the meeting in April, 1797, the following resolution was passed:

"That the President and Fellows in Convention aforesaid, shall have full power to impose such pecuniary penalties on the Members of said Society,* for the transgression of their bye-laws as may be deemed necessary for the well ordering of the Society, not exceeding the sum of——dollars."

In April, 1798, we find the Society still more increasing its usefulness by requesting Fellows to prepare "Dissertations and Observations" on various subjects.

Resolutions were also adopted to hold discussions on certain subjects.

"*Quest. 1.* What are the best remedies for Asthma?"

Quest. 2. What is the Modus Operandi of astringent medicines in promoting the resolution of topical inflammations.

Quest. 3. Why certain substances, taken into the stomach, excite a sudden and increased flow of urine."

From this time on, learned papers and discussions seem to have been frequent and common at the meetings.

"At the April meeting, 1799, Dr. Jacob Hovey read a dissertation on the connexion of soul and body and their influence on each other."

This shows that the society began, at this time, to grapple with deeper questions than "Physics." In April, 1800, the same year as the Government seat was removed to Washington, the Society did bestir itself

*Note first appearance of the word Society.

in a most worthy manner. A communication from the Hartford Co. Medical Society was received, asking the aid of the Society to have certain laws passed by the State Legislature.

On the records of that meeting we find this:

"Resolved, that the important purposes, which were designed in the formation of the Medical Society of this State, cannot be effected, but the intention of its formation be entirely frustrated unless the Hon. General Assembly of this state shall see fit to pass an act, to deprive all those who are not members of the Medical Society, or regular Practitioners, of the priviledge of law to collect their debts.

This meeting, therefore, requests the Fellows of this county to use their influence in Convention to Petition the General Assembly for that purpose."

In September, 1806, the Society termed its Fellows "Practitioners of Physic and Surgery," and from the same records it appears, that the Society had the right to license physicians, and that a medical law was in existence in the State, regulating the practice of medicine. In September, 1814, when war was raging furiously between this country and England, the year in which so many glorious victories were won by our armies, the year that President Madison began his second term, the year of the Creek War, of Perry's victory on Lake Erie, when Jackson defeated the Indians, when Tecumseh was killed and the Indian Confederacy broken, in this year, the Windham County Medical Society took the very worthy initiative of sending a medical student, probably at its own expense, to the Medical School of New Haven. I gather this opinion from the records of the Society, that it was entitled to send a candidate to the Medical School, and that this privilege was probably paid for by the Society.

The year 1815, memorable for the Battle of Orleans, and the declaration of war by Congress, against Algiers, saw the Windham Society make another move in the direction of concentrating the powers of medical fraternities. A resolution was passed, at the September meeting that year, that members of the Windham Society should refuse to consult with practitioners who should withdraw from the State Medical Society without good and substantial reasons (to be ascertained by the Windham Society), or consult with any practitioner who had been examined and licensed by the State Society and who did not come forward and join the same. In 1816 Dr. Hubbard read a "dissertation on the importance of Medical Character."

In 1821, particularly notable for the Declaration of Independence by Mexico from the mother country, Spain, the Windham Society seems to have been strongly influenced by the temperance movement, which began in Connecticut about that time, and at its meeting in April, that year, a resolution was passed as follows:

"That the use of distilled spirits be abandoned at the Medical Society meetings.

The records of the meetings in the year 1826, memorable for the death

of the two ex-presidents Adams and Jefferson, show that the Society undertook to study certain features of medicine in an orderly and praiseworthy manner and a resolution was

Voted: "That the members of this County Society be requested generally to communicate to the next meeting the result of their experience in such febrile diseases as may prevail, with such observations on the writings of authors as they may think proper. Particular attention is expected will be given to the diagnostic symptoms and mode of cure in febrile diseases.*

At the next meeting in 1827, Dr. Campbell and others, seem to have presented valuable papers on "the fever of 1826."

In April, 1829, another blow was struck at intemperance, and the following preamble passed and published in the Brooklyn Journal:

"Whereas the deep and increasing interest manifested upon the subject of temperance at the present day, has rendered it proper that some public expression of opinion should be made by those who are the constituted guardians of health,—and whereas peculiar weight always attaches to opinions when promulgated in manifest contrariety to private interest.

Therefore Resolved,—That it is eminently the duty of the medical faculty to lend their aid both by precept and example, in promoting the cause of temperance.

Resolved,—That in our opinion ardent spirits are unnecessary in health and their frequent use creates a predisposition to both chronic and acute disease."

In 1830 a committee was appointed to prepare a fee-table.

Upon recommendation of the committee the following table was adopted, and every Fellow was to be severely dealt with, who would refuse to confirm to its rules.

"Rule 1. No member shall charge less than one shilling per mile travel, unless in case of poverty;

2. No visit and medicine shall be made for a less sum than thirty-four cents;

3. An addition of not less than twenty-five cents, each visit, shall be made to the travel fee;

4. Fifty cents at least, shall be added, each visit, to the usual fee, in cases of consultation;

5. For venesection, not less than seventeen cents shall be taken and for extraction of tooth and cathartic, twelve and a half cents each;

6. In cases of obstetrics, the minimum price shall be three dollars."

At the April meeting in 1834, the Society seems to have changed the name of its presiding officer from that of chairman to moderator.

An unusual number of interesting "dissertations" and cases were brought forward at this meeting.

As a fair sample of the high order of proceedings at the April meeting in 1836, I will mention that Dr. Hutchins, the efficient secretary, read a dissertation on Inductive Philosophy.

Dr. Wm. Wetter related a case of narcotic effect of nutmeg, and Dr. Brewster spoke on a case of mania. All cases were liberally discussed.

*Note the correct language and orthography used by the worthy secretary.

The regular meetings were held semi annually, and the routine business of the society seems to have progressed undisturbed until 1847, when Dr. Baldwin was chosen a delegate to attend the National Medical Convention in Philadelphia, May, 1847. In 1848 the Society sent Dr. Hammond as a delegate to the meeting of the American Medical Association held in Baltimore in May of the same year. Dr. Cogswell spoke on a case of "*Trachialis*" and exhibited a specimen of membrane thrown off from the patient, a child, coming under his observation. In 1851 the Society passed the following resolution:

"That in the opinion of this society, it is inconsistent with the dignity of the profession, for the Connecticut Medical Society to retain in fellowship any of its members who may adopt as their *system* of practice *Homeopathy*, *Hydropathy*, *Thompsonianism* or any other exclusive system."

In the same year Dr. Fenner H. Peckham, father of Dr. Fenner H. Peckham Jr., of Providence, R. I., appears to have been a highly honored and active member of the society. In 1853 the subject of Dental Surgery seems to have been ably brought out by Dr. Williams, and promiscously discussed by the members. To show the esteem in which devotion to science was honored by the Society even at that time, I cite the resolutions adopted upon the death of Dr. Bowen.

"Resolved,—That in the death of Dr. Samuel Bowen the medical profession has lost one of its brightest ornaments, a man entirely devoted to the interests of medical science, and the cause of humanity, and while lamenting *our* loss, we tender our sympathies to his family and friends."

I meant to have mentioned that in 1844, Dr. Ossian Sumner was admitted to the Society and was for many years an honored member of the same. He afterwards removed to Providence, R. I., and is yet conducting a prosperous drug business here.

In April, 1855, the Society decided that no person not *strictly indigent* should be recommended to a free course in the Yale Medical School, and while preference should be given to sons of physicians, no one, not thus characterized, should be recommended.

From 1856 we note the name of Dr. L. Holbrook among the most active and prominent members of the Society.

Dr. Woodbridge presented a paper that year on *Regular and Irregular Medicine* which seems to have been well received.

Dr. E. A. Hill occupied, at that time, a very prominent position in the Society.

The proceedings of the Society seem to have run along in the ordinary smooth manner until the breaking out of the Rebellion, when the members of the Society, in common with other loyal good citizens, contributed their share to the common cause, which can best be seen by citing the resolution passed at the April meeting, 1861:

"That,—The members of the society should attend the families of all volunteers gratuitously;"

and in 1862, it was decided

"That this resolution meant all volunteers enlisted for at least three months."

In another number I will continue the history of the Society from this time onward.

[TO BE CONTINUED.]

FORMS OF MALARIA AND THEIR CHARACTERISTIC FEATURES.

BY DR. FRANCISCO A. RISQUEZ.

Professor of Medicine in the University of Caracas, and Physician to the Military Hospital in the Federal District, Venezuela.

READ BEFORE THE PAN-AMERICAN MEDICAL CONGRESS.

THE malarial diseases in Venezuela may be classified as follows:

I. Intermittent forms, generally quotidian, occasionally tertian.

II. Continued forms, including the varieties: (*a*) bilious, (*b*) icterohematuric.

III. Pernicious forms, including the varieties: (*a*) pernicious proper, (*b*) complicated.

IV. Larved forms, including the varities: (*a*) periodic, (*b*) continued.

The forms of the first group are easily recognized by the features of the paroxysm and by the periodic element. When the access is prolonged, the diagnosis may be difficult.

The forms of the second group are distinguished by the gastro-hepatic symptoms and the indications of the urine. They may be confounded with others, especially the yellow fever, and the distinction becomes often a matter of life and death.

The forms of the third group are recognized by the pre-existence of malarial paroxysms. It may become almost impossible, however, to distinguish between cholera, pneumonia or tetanus and cases of choleriform, dysenteric, tetanic, etc., pernicious fevers.

The forms of the fourth group present still greater difficulties, especially in the continued varieties. They may assume all the appearances of typhoid fever, of cholera, of dysentery, of paralysis, of hœmorrhage. The malarial cachexia may simulate tuberculosis, hepatic abscess, etc.

An early diagnosis is indispensable in these cases, because they

require the fearless administration of quinine; and this drug may be contra-indicated in the non-paludal diseases.

There is but one unquestionable method of diagnosis: *the microscopic examination of the blood.*

All malarial manifestations are accompanied with melanœmia; melanœmia presents itself exclusively in malaria, the sign is, therefore, pathognomonic.

A drop of malarial blood, under the microscope, shows the masses of black pigment in the plasma. The manipulation requires no special technique; it is simpler than the examination of the urine. It does not require, as the parasite of Laveran does, an investigation by an expert with high powers. Our method requires only a few slides and covers, and a drop of blood obtained from the finger, previously washed. The preparation is taken to the laboratory and there examined. The strong mineral acids may be used as reagents.

A search after pigment should be made in all suspected cases. The number and size of the pigment masses is proportional with the degree of malarial poisoning. If they are found at all, quinine should be given.

I have found pigment in all forms of malaria. I have found it also in other diseases, but only as an evidence of malarial complication.

Melanœmia is always an indication for the administration of quinine. The life of the patient depends often in these cases upon a prompt diagnosis.

SURGICAL TREATMENT OF PERITONITIS.

BY M. B. WARD, M. D., TOPEKA, KAN.

READ BEFORE THE PAN-AMERICAN MEDICAL CONGRESS.

IT IS not my purpose to attempt to enlighten the distinguished gynecologists whom I now have the pleasure and honor to address, by presenting this brief essay, but rather that I may add my "mite" relative to the importance of early surgical treatment of peritonitis. It is, indeed, very essential that well-established surgical procedures should be constantly kept plainly engraved on the sign-boards so as to guide the members of our profession.

Human life is dear to the possessor and fondly cherished by loved ones, therefore, we need the wisdom of all who have had experience—even though it be limited—to guide us when brought face to face with conditions which seem to demand surgical interference in order to save life, when, perhaps, the patient *might* recover without an operation, and does succumb on account of the operation. So long as time shall last, the profession will have to deal with such uncertain problems. Almost

every week, and right under our personal observation, men and women are dying of peritonitis, caused by appendicitis or disease of pelvic organs, and nothing is done to save their lives, except it be to administer opium or salines, with the vain hope that each hour will show improvement. But, alas, nothing can be done, the last opportunity for surgical interference is past, our hands are folded on our breasts and we exclaim, "The Lord's will, and not ours, be done."

Those who recover from peritonitis without an operation, or, rather, are symptomatically cured, are almost certain to suffer from recurring attacks which are more serious and dangerous than the first onslaught.

When called upon to treat this character of cases, we all are inclined to be timid and hesitate. It is not the experience of all surgeons that an operation is only recommended after every other known remedy has been tried and an operation is the only source of relief?

This paper is written especially that I may record the statement that surgical interference, when properly done, should never increase the mortality. I do not wish to convey the impression that I would operate on every case of acute obstruction of the bowels. Peritonitis and intestinal obstructions are essentially different. The symptoms of peritonitis are usually rather apparent. An important landmark to the diagnosis of peritonitis is the fact that while the bowels are usually locked, they will act after the persistent use of laxatives and enemas, but the evacuation of the intestinal tract does not relieve the distension or tenderness. In other words, when the patient seems to be doing well they often are in the greatest danger. I call attention to this feature of the subject in order to emphasize the importance of watching, most carefully, patients who have symptoms of peritonitis and claim they feel relieved after having a movement of the bowels.

I also think the profession should be warned against the delusion that, because the patient's bowels have moved, there is no more danger. I have myself been led astray in this direction, and have told patients that they were getting along nicely, when, afterward, I found myself mistaken. I would, therefore, urge the propriety of operating on all cases whose history points to recurring attacks, where other conditions give promise of success. I would also urge the necessity of early surgery in all acute attacks where the gravity of the onslaught indicates that the appendix vermiformis is the cause of the inflammation, or even when it is found to be a leaking pus tube or ovarian abscess. Perhaps it is not necessary that I should add in this connection that we cannot with propriety rush into every abdomen with the knife that seems to demand operative procedure, for often it is essential to success that certain preparations be first made by way of getting the patient in the best

possible condition for operating. The preparation of patients can only be carried out to perfection in elective cases.

It was my intention to report some cases, but perhaps a brief reference to two bad cases will suffice the purpose.

In April of this year I was summoned by telegram to a distant part of this state to operate on Mr. W., for appendicitis. The summons came from the attending physicians, and was not authorized by the patient or friends. I arrived at the patient's residence at five o'clock in the morning, and was at once informed by the friends that they were sorry that I had been sent for, because the patient was greatly improved, having had no morphine for the last twenty hours. Prior to this time large doses of morphine had been given to partly control the intense suffering. After an examination, I, too, was led to think the patient was doing quite well; his temperature was 101 and pulse 120. The abdomen was moderately distended and very tender, the most sensitive point being over the cecum. I watched the patient carefully for four hours before I operated. The first two hours of this watching I felt certain that an operation would not be necessary and so informed the friends, but later, it was noticeable that the patient was failing, and failed so rapidly it seemed that he could not live but a few hours at the longest. Upon opening the abdomen, the odor was that of fecal matter. The intestines were in a condition akin to gangrene; the adhesions were so profound and universal that it was impossible to move a single coil of intestines without tearing it loose from its moorings. The cecum was so nearly gangrenous that my finger perforated the gut while carefully examining the condition. The opening in the intestine was about one inch in length. This I closed by the use of fine silk sutures. The adhesions were broken up until the patient began to show signs of shock. Although I had apparently accomplished but little, yet I had succeeded in separating the intestines so as to be able to flush the cavity most thoroughly. Several gallons of warm sterilized water were used. The abdominal opening was packed with iodoform gauze and the patient placed in bed. In one hour after the operation the patient's symptoms were decidedly better and he expressed himself as greatly relieved. I informed the friends that the patient could not recover, that the inflammation had gone to the very verge of suppuration or breaking down of the tissues, and I thought it impossible for the intestines to resume their natural functions. However, after twelve hours, I felt hopeful, but remained with the patient twenty-four hours after the operation, leaving him in the care of two bright and experienced physicians. On two or three occasions the patient had considerable pain, and on one occasion suffered very greatly for a few hours, during the course of his convalescence, but, aside from these slight disturbances, he made a rapid and

uneventful recovery, and is now an entirely well man, and attending to his avocation as superintendent of a large stock ranch.

Another case, quite as interesting on account of its history, but in no way as grave as the case just referred to: Mr. A., who resides in this city, consulted me about two months ago to obtain my opinion regarding the necessity for an operation upon himself for appendicitis. He gave a history of having had several attacks, some of them quite severe, and the last one, from which he was just recovering, kept him in bed about ten days with a high temperature and rapid pulse. Two physicians had recommended an operation to be done at once, but I found him in so comfortable a condition, with temperature only 99½ and pulse 90, a good appetite, bowels regular and not very tender; I thought it best that he should wait developments, and in case he should suffer from another attack it would be plenty of time to operate. My advice was heeded and for a time it seemed to have been wise counsel. About one month after I had first been consulted I received a telephone message to come at once prepared to operate on Mr. A.

The operation was done as promptly as preparation could be made. Upon opening the abdominal cavity we were shocked, because we were certain from the odor that the intestines were perforated. However, it was found upon examination that it was not a perforated intestine but the broken down condition of the tissues. The cecum was buried in adhesions, and I was obliged to carve my way, so to speak, in order that I might remove the large intestine and examine it. There was no vestige of the appendix remaining. The inflammation in this case did not extend to the small intestines but involved the cecum and ascending colon and a small proportion of the ilium. After thoroughly separating the adhesions and loosening the diseased intestines I flushed the abdomen with a large quantity of sterilized water, drained and packed as in the case above mentioned. The patient recovered so rapidly that it did not seem there had been anything the matter with him. His temperature fell one degree and a half in less than one-half hour, and never got higher than 100 after the operation.

The brief reference to the above cases is quite sufficient in my judgment to illustrate the purpose of this paper, because one could not find graver cases than these two, and yet have such uneventful recoveries. In the case first mentioned, life must have been saved by the operation. The second case, in my judgment, would have gotten up without an operation, and yet it is possible he could not have lived.

A Very Fine Dog.—"That is a very fine dog you have, Johnny."

"Yes, but he is consumptive."

"Consumptive! Why do you say that?

"He's Spitz blood, you know."

THE QUACK EDITOR AND THE QUACK DOCTOR.

THE fearless editor of the Philadelphia *Medical News* draws a vivid picture of the position occupied by the venal editors of the lay press who seek to justify themselves in their wrong doings. It would be interesting to read the true thoughts and feelings of these associates of quacks and charlatans when they see themselves portrayed in such true colors. We give below a portion of the editorial referred to:

"But there are friends who are not compelled to whip up subterfuge or factitious indignation; these are the dear newspapers whose pocket-books are touched, whose very financial existence, indeed, depends upon crapulous advertisements and the money of the nostrum-vender. These may loudly bawl their hatred of anyone who shall pretend to criticise the infamous traffic upon which depends their daily bread—*Wessen Brod Ich ess'*, *dessen Lied Ich sing'*—and so from one land's end to another the venal newspapers whose ten columns are filled with filthy advertisements of nostrums, 'patent' medicines, and obscene literature, find room in the one or two remaining editorial columns of their space (also for sale, if desired!) to abuse Mr. Hart because he thinks the newspaper doctor and the nostrum-traffic quite contemptible. With editorial ink that stinks of the advertiser's skunkery, the didactic editor writes against the plucky Englishman, his antediluvian ethics, and his ancient prejudices.

"One example of many such is an editorial in a recent number of the *Pittsburgh Post*, entitled, 'Antiquated Conceits,' in which Mr. Hart and the 'old school' are lectured as if by a demigod of wisdom and virtue for their 'intolerance,' 'medievalism,' 'obsolete traditions,' 'despotism,' and all that, and are told that all this has long since passed away with other thousands of effete superstitions and shams. 'Professional etiquet and ethics' are spit upon quite contemptuously, and the day of progress, of money-making by medical trickery, by nostrums, and, egad! by the newspapers, is dawning to the everlasting shame of worn-out and antiquated medicine."

"Now, if a healthy stomach can control a healthy tendency to vomit when compelled to smell such an odious mess as this, it is, of course, quite amusing—much as would be a sermon by Boss Tweed on civic virtue. But repeated from a thousand newspapers, it grows too intolerably wearisome, and indignation wishes that a Dantean circle of the Inferno might be awaiting these righteous and progressive editors who thus prostitute their office for gain, and that for two eternities they had to swim in lakes of their advertisers' bitters, blood purifiers, and panaceas, with no food but their advertisers' 'little pink pills,' and 'Gentle-

men's Friend' ('with a syringe free'), and no literature but their advertisers' 'marriage guides,' and 'retired clergymen's' secrets.

"There are, thank heaven! a few lay journals that from principle and very shame refuse to fatten on humbug, and to sell their editorial souls to the begulled public's undoing. To these honorable exceptions we would appeal that they seek by every means, and on every possible occasion, to arouse in the public mind some true conception of the real state of affairs as regards the animus and doings of the medical profession, and as regards the animus and doings of the foes it has to withstand."

DIEULAFOY ON THE EARLY DIAGNOSIS OF BRIGHT'S DISEASE.

FOR years past M. Dieulafoy has, both at the bedside and in his much-read work on Medicine, sought to emphasize the importance of divers symptoms which, though often apparently trivial, are none the less significant of the existence of that very common malady Bright's disease. To these symptoms he has given the name of *petite uremie*, or Brightism. He regards albuminuria as an unreliable symptom of Brigth's disease. (*The Lancet.*) In sixty cases under treatment in his wards during recent years albuminuria was absent in one-fourth. That nephritis really existed was proved in several instances post mortem. In another series of cases albumin disappeared in spite of the continued evolution of the disease. Some patients are albuminuric without being Brightic, to adopt the French expression. Among the symptoms of Brightism M. Dieulafoy mentions auditory troubles. These consist in whistling or more sonorous noises in one or both ears, the causes being multiple (œdema, paralysis of the acoustic nerve, pressure variations.) The frequency of these noises may be judged of when it is stated that they were present in thirty-four out of sixty cases. Meniere's vertigo was frequently complained of (thirteen times in sixty). Asphyxia of the extremities, first described by Maurice Raynaud, is one of the commonest symptoms of Bright's disease. This begins as formication of the hands or fingers, and then the tips of the latter become bloodless, pale and numb. This dead-finger symptom is found in all forms and in all the stages of Bright's disease. Itching, without possessing the same importance as the above, is sometimes very severe. Frequency of micturition is well known as a symptom of the disease. To this symptom M. Dieulafoy has given the name of pollakiuria to distinguish it from polyuria, many Brightics, in fact, micturating ten or twelve times a day without void-

ing a quantity above the normal. Cryæsthesia (κρυος=cold), or sensitiveness to cold, is a minor symptom of nephritis. It is generally confined to the lower extremities. Cramps, especially noctural, in the calves of the legs are sometimes severe enough to wake the patient. Epistaxis, chiefly occurring in the morning, is often significant. Electriform shocks must also be counted in this category. At the moment of falling asleep or during sleep the patient is aroused by a single violent shock recalling the effects of an electric discharge. The temporal sign is frequent. Here the temporal artery is distended, dilated, and tortuous without being atheromatous. This is of course due to high arterial tension. The foregoing symptoms of Brightism, if associated in any one individual, are, according to M. Dieulafoy, sufficient to warrant the diagnosis of Bright's disease. He is convinced that many people apparently healthy are in reality Brightics, and this conviction would be shared by most practitioners did they inquire into the presence of these symptoms of Brightism. A confirmation of this diagnosis will frequently be found in the good effects of an exclusive milk diet, which causes the disappearance of these seemingly insignificant troubles. M. Dieulafoy has also applied another test—viz., the degree of toxicity of the urine passed by patients affected with Brightism. He finds that this secretion has in such cases lost a portion of its toxic properties.

EXPOSE OF QUACK "CHEMICAL COMPOUNDS."

A LARGE proportion of the recently introduced antipyretics and antiseptics, though almost in every instance advertised to be a "chemical compound," have been found to be simple *mixtures* of several medicinal chemicals, combined in varying proportions. Thus, "*Anticylic acid*," introduced as an antipyretic and anodyne, is reported to be merely a mixture of *anti*pyrine and sali*cylic* acid. "*Antidiphtherin*" is the name given to a new preparation claimed to be a remedy for diphtheria, and which, upon examination, is found to contain potassium chlorate and a trace of ferric chloride. "*Antikamnia*," is a compound foisted upon the medical profession as an anodyne, but which, according to analysis, is merely a mixture 70 parts of antifebrin, 4 of caffeine, and 22 of a mixture of sodium bicarbonate and tartaric acid. "*Antinervin*" (so-called "salicyl-brom-anilide"), lauded as an anodyne and nervine, consists, according to E. Ritsert, of a mixture of one part of ammonium bromide, one of salicylic acid and two of antifebrin. "*Antiseptin*" (so-called "zinc borothymol iodide"), extolled as an antiseptic, is, according to Goldmann,

a mixture of 85 parts of zinc sulphate, 2½ of zinc iodide, 2½ of thymol, and 10 of boric acid; it must not be confounded with "antisepsin," which is chemically para-mono-brom-phenylacet-amide, nor with "antisep*tol*," which is cinchonine iodo-sulphate. "*Aseptin*," an antiseptic introduced some years ago by Gahn, is said to consist of a mixture of boric acid, borax and alum. "*Camphol*" is an antiseptic and anodyne consisting of a mixture of camphor and salol in varying proportions. "*Exodyne*" is another antipyretic and anodyne, which, according to F. Goldmann, is nothing but a mixture of 90 parts of antifebrin, 5 of sodium salicylate, and 5 of sodium bicarbonate. "*Lysol*" is a disinfectant of very complex and indefinite chemical composition. "*Phenolid*" is an antipyretic and anodyne found by analysis to be a mixture of 58 parts of antifebrin and 42 of sodium salicylate. "*Quickine*" is an antiseptic composed, according to the *Pharmaceutische Zeitung*, of one part of corrosive sublimate, 50 of carbolic acid, 50,000 of dilute alcohol. "*Somnal*," introduced as a hypnotic, is reported to be merely a solution of chloral and urethane in alcohol.—*Merck's Report.*

FOREIGN MEDICAL MEN AND MATTERS.

FRANCE.

Prof. Charcot's successor.—*The Medical Faculty of Paris* has not yet decided whom to appoint in place of the deceased great scientist. They have finally concluded to appoint *ad interim* Dr. Briscot, one of his most valued assistants, as chief of Salpetrèire.

Prof. Leon Le Fort, professor of surgery and vice-president of the Paris Academy of Medicine, died recently.

Pasteur's Institute.—Seventeen-hundred and ninety have been treated during the past year at this institute for rabies; and of these four have died.

In 600 cases rabies was suspected, and in all the others rabies had been ascertained by dissection of the animals. 1,584 patients came from France and Algiers.

GERMANY.

Prof. Virchow celebrated his fiftieth anniversary on the 21st of October, as *Doctor in Medicine.*

He was the recipient of numerous congratulations from all over Germany and from other countries. The "*Berliner klinische Wochenschrift*" of that week is an anniversary number, devoted exclusively to the celebrated professor.

ENGLAND.

The well-known laryngologist, *Lennox Browne*, performed tonsillotomy recently upon the nine-year-old son of Lord Annesley. The

operation was done under chloroform anesthæsia and the Doctor sent a bill for 30 guineas, (150 dollars). The operation did not take over three minutes and Lord A. considered the bill exorbitant and refused to pay it. The courts have decided that the lord must pay, however, and claim that the time occupied in the operation has nothing to do with the price.

Sir Andrew Clark, of London, England, died on the 6th of November at the age of sixty-six. Sir Andrew was born on October 28, 1826, and was educated first at Aberdeen and then at Edinburgh, in whose medical schools he took the first medals in anatomy, physiology, chemistry, botany, materia medica, surgery, pathology, and practice of medicine. After assisting Dr. Hughes Bennett for two years in the pathological department of the Royal Infirmary, and acting as demonstrator of anatomy to Dr. Robert Knox, the famous anatomist, he had charge for the following four years of the pathological department of the Royal Naval Hospital at Haslar, where he delivered lectures on the use of the microscope in practical medicine. Dr. Clark took his degree of M. D. from the University of Aberdeen in 1854, after which he went to London, where he became a member of the College of Physicians and Surgeons, and was elected on the staff of the London Hospital. He was made a fellow of the Royal College of Physicians in 1858, and was subsequently its President, and President of the Medical Society of London, and lastly of the College of Physicians, which position he held at the time of his death. He was made a baronet in 1883, and nearly all the honors and titles of the medical profession were his. He was a fellow of the Royal Society, a Doctor of Laws of Cambridge, Edinburgh, and Aberdeen, an honorary fellow of the King and Queen's College of Physicians in Ireland, etc. His works on the different departments of internal medicine are numerous, and are authorities on the subjects of which they treat. Dr. Clark was also renowned as a lecturer on his specialties.—*Medical Record.*

It was the special privilege of the managing editor of this Monthly to visit Sir Andrew Clark in the spring of 1892, being ushered into the great man's presence without the customary "introduction" which is always necessary in obtaining audience with great medical men abroad.

A patient of mine, here in Providence, had treated for several weeks with Sir Andrew at London, many years ago, and to this fact, I owed, perhaps, the cordial treatment which I received at the hands of Premier Gladstone's trusted friend and medical adviser.

The long audience accorded me and the many other acts of politeness shown me at that time and the kind letters I have since received in answer to inquiries about medical matters in England, I shall never forget.

One can read the greatness of such men in their very looks and when they open their lips to speak, they say more in a few words than many men have done during a life time. What an irreparable loss to medical science and to English speaking people; we all feel it, and wonder who shall be able to fill his place. What a noble example he has set for us; what a splendid physician and man he was; and yet he was not too exalted to show polite attention to one of the humblest of American physicians.

Mr Gladstone's Physician.—Dr. William H. Broadbent has been chosen physician to Mr. Gladstone, in place of Sir Andrew Clark.

IN MEMORIAM SIR ANDREW CLARK, BART.

November 11th, 1893.

Stabam fano in sacrato,
Qua solo sanctificato
  Jacent clari Angliæ—

Circumspexi—En, sollennis
Erat visus, et perennis,
  Quem videbam undique.

Vasto a concursu itur
Hunc lugere, cui finitur
  Omnis dolor, omnis spes—

Magnus medicus decessit,
Et labore requiescit,
  Cui non prius requies.

Qui tot morbos allevabas,
Qui tot focis vitam dabas,
  Spe finita omnium.

Noscit is, quid tibi debet,
Qui hoc triste munus præbet,
  *Dux illustris ultimum—

Illa Ars, tam multis satis,
In hora necessitatis
  Nihil prodest domino.

Tibi finis universus—
Pulvis pulveri reversus—
  Medicorum maximo.

*The Right Hon. W. E. Gladstone was one of fhe pall-bearers at the funeral service at Westminster Abbey.

—*The British Med. Journal.*

The Presidency of the Royal College of Physicians.—There is, of course, much private discussion as to the choice of the successor in the Presidency of the Royal College of Physicians of London to Sir Andrew Clark. No steps have yet been taken in the matter. Among the names canvassed is that of Sir Richard Quain, between whom and Sir Andrew Clark the choice of the college lay on the last occasion, but he will probably not be willing to leave the eminent post of public usefulness which he at present occupies as President of the General Medical Council, unless in response to the practically unanimous desire of the Fellows expressed in some unmistakable manner. Other names mentioned are those of Sir Edward Sieveking, Dr. Wilks, Dr. Russell Reynolds, Sir William Roberts, and Sir George Buchanan.—*The British Med. Journal.*

The London Lancet announces that *Dr. Keeley*, of "gold cure" fame, has discontinued the suit for libel, brought against the editors of that journal over a year ago, and will have to pay the costs. It was all done for effect.

NEW ENGLAND MEDICAL MATTERS.

Connecticut Examining Board. The following are reported among the applications recently received by the Examining Board. The new Medical Practice Act took effect October 1, and it would appear that the Board has not commenced its work too soon:

"I taught first when I received your notice that your Board did not register vetenery surgean, but I lernt cence that you do. I practic foure years under other Doctors and Two years alone before I came to this state; I have been Two years in this state; I did not state that I had practiced in this state on the blank, because I did not have on office here altho I have practic I have had at an avrag one case a week cence I have been hear."

Another produced the following:

"I write to you to see if I can get a permit to put up a Blood medison maid of Herbs, this has been my business for years and I intended to have wrote you befour this but I have had a sick Lady to see to so I have not had time."—*A. B. B.*

Honors for the Boston City Hospital. The Boston City Hospital has secured a medal at the World's Fair for the excellence of its exhibit. The exhibit consisted of plans, photographs and other objects of interest in connection with the hospital service.—*A. B. B.*

LOCAL MEDICAL MATTERS.

Mrs. H. J. Pomroy, widow of the late Dr. H. J. Pomroy, has served notice on the members of the local profession that she will continue the Directory of Nurses, at 416 Broad street. From our knowledge of Mrs. Pomroy's signal ability and experience, she having managed the Directory almost entirely during the last few months, we know she will carry on this useful establishment as successfully as has been done in the past. We are sure every right-minded physician will aid Mrs. Pomroy all he can.

Dr. Gardner T. Swarts, for many years Inspector of the Department of Health, of the City of Providence, was recently elected to fill the vacancy caused by the death of Dr. Charles H. Fisher, as Secretary of the State Board of Health.

Dr. King has been appointed Inspector, to fill the vacancy caused by Dr. Swarts.

Recent Bequests.—The will of the late Dr. Parsons, of Providence, bequeathes his medical library to the Rhode Island Medical Society, and four thousand dollars to the Rhode Island Hospital, to establish a free bed in memory of his father, Usher Parsons. The residue of the estate, after paying all the bequests, is to go to the Rhode Island Hospital. The estate is reported as very large.

REPORTS OF SOCIETIES.

THE INTERNATIONAL MEDICAL CONGRESS.

THE undersigned, chairman of the American National Committee of the International Medical Congress, which was postponed from September 24th on account of Cholera prevailing in Italy, has been notified by the Secretary-General that the Congress will be held at Rome from March 29th to April 5th, 1894. Instructions and documents relating to the journey, etc., are promised for the near future.

Yours very respectfully,

A. Jacobi, M. D.

110 W. 34th Street, New York,
November 17, 1893.

AMERICAN PUBLIC HEALTH ASSOCIATION.

AT THE annual meeting of the American Public Health Association, held at Chicago Oct. 9-14, 1893, the following resolution offered by Dr. Henry P. Walcott of Massachusetts was adopted:

Resolved, That the American Public Health Association again urge upon Congress the necessity of the appointment of some officer with general sanitary authority in connection with the National Government.

That the functions of such an authority are of sufficient importance to demand the exclusive attention of the best instructed sanitarian.

That such authority should be enabled, from time to time and under proper regulations, to secure the advice and coöperation of State Boards of Health.

Irving A. Watson, Secretary.
Secretary's Office, Concord, N. H., Oct. 25, 1893.

AMERICAN MEDICAL ASSOCIATION.

CHANGE OF DATE OF MEETING—OFFICIAL NOTICE.

IN ORDER to enable the State Medical Societies to send instructions as to their action upon the matter referred to them by the American Medical Association at its recent meeting at Milwaukee, and for other reasons, the time of meeting of the Association at San Francisco has been changed from the first Tuesday in May to the first Tuesday in June, 1894.

William B. Atkinson,
Permanent Secretary.

Jas. F. Hibberd,
President-Elect.

THE MEETING OF THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION.

THE Third Annual Meeting of the American Electro-Therapeutic Association was held in Chicago, Sept. 12, 13 and 14, 1893. The Association is in a flourishing condition, and the meeting was largely attended. Many papers were read on electrical appliances, and the value of electricity in disease, etc. Dr. W. J. Herdman, of Ann Arbor, was elected President, and Dr. Margaret Cleaves, of New York, Secretary; Dr. Franklin H. Martin, of Chicago, and Dr. A. Lapthorn Smith, of Montreal, Vice-Presidents; Dr. R. J. Nunn, of Savannah, Ga., Treasurer, for the ensuing year. It was decided to hold the next meeting in New York City, on the last Tuesday in September, 1894.

THE PAN-AMERICAN MEDICAL CONGRESS.

THE City of Mexico has been chosen for the place of meeting of the next Pan-American Medical Congress. Although the date has not been definitely fixed, it is generally understood that it is to occur either in 1896 or 1897. The one held at Washington reflected much credit, both on the promulgators and the participants, and the prospects for a like successful event in Mexico are excellent. The inducements to take part in the coming Congress will be many, when, in addition to the general medical interests, the sociologic, political and other observations that may be made by the philosophical traveler, are taken into consideration.

The R. I. Medical Science Monthly,

J. FREDERICK HALLER, A. B., M. D.,

MANAGING EDITOR,

To whom all communications to this Journal of any nature whatsoever, whether Letters, Exchanges, Books or Pamphlets for Review, or anything intended for the Editorial or Business Department should be addressed,

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For the Pharmaceutical Department, WM. E. CATES, Ph.G.

Books and monographs, native and foreign, on any of the Medical Sciences, will be reviewed without fail, according to their merits and the space at disposal.

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"Contributions to its pages should be made often and brief; but it should be the bounden duty of every one to at least once a year make his offering in this channel.

"The subscription price of the local journal should never be allowed to run over, for there is never a time when the local journalist is not doing more for his profession than it is doing for him. The largest weeklies should occupy the second position"—*Dr. J. C. Culbertson at Milwaukee, June, 1893.*

EDITORIAL.

IT is our painful duty, just as we go to press, to again record the death of one of the younger and most active members of the medical profession of Providence, Dr. H. J. Pomroy, who passed away, suddenly, on the 27th of November. He was, to all appearances, in perfect health, and on the day before his death, many of us conversed with him very pleasantly and we could notice nothing wrong about his physical or mental condition.

He had always considered himself to be in good health and had often commented upon it. On the morning of the 27th he awoke at four o'clock, and complained of a heavy feeling around his heart and over the epigastrium. He went to his office and took some soda bi-carbonate and returned to bed, all this time growing weaker, however, and within half an hour he was dead. We can hardly believe it to be true after seeing him just previously as well as any of us, and participating in everything that a healthy person would do, and then to think of his death after only half an hour's sickness.

There was, as we understand it, a disagreement between the Doctors present at the autopsy as to the cause of death and we will not comment upon that matter until a definite conclusion has been reached. We will, however, emphasize the lesson to be learned from this sudden departure of our esteemed colleague. Doctors are, as a rule, men whose habits of life are necessarily irregular. Their sleep is often disturbed, their meals seldom partaken of at regular times, their opportunities for rest, recreation and relaxation very few and far between; their life is one continual struggle with suffering and death, and few Docters can enjoy that peace and tranquility of mind that people of other vocations can, and which are so necessary for health and longevity. There is always some unsolved and obscure problem or wearysome case troubling the Doctor and disturbing his rest. All these hardships are never taken into consideration by a thoughtless multitude, or that the Doctor is thus laying the foundations to some dangerous disease that may suddenly, as seen in the cases of Drs. Radeke and Pomroy and a number of others, terminate his career. His brain becomes overloaded with waste matter, his portal circulation is obstructed, his liver and other organs of digestion do not perform their work properly, his kidneys are irritated, his nerves unstrung, his heart becomes hypertrophied and valvular disease follows; indigestion, constipation, vertigo, palpitation, neuralgia, headache, insomnia are common among physicians and few of them,—only a favored few,—reach the age of three score and ten. It is a sad picture to behold, but it is drawn from real life. Many physicians neglect exercise and other laws of health, and when disease sets in, they are the poorest people to care for themselves, for their mind is so taken up with dangerous diseases of others, that they forget and neglect their own. And so the physician's life is passed between close attention to hard and dangerous work, not only in the sick room but under his study-lamp as well, little caring for his own comfort and health, receiving but meagre pay for his labor, and little appreciation. And when the physician passes away suddenly, as did our esteemed friend and colleague, Dr. Pomroy, people will lament it and be much concerned over the fact that a young physician, in the

prime of life, has died. His ceaseless labors are then first thought of; it is found that the world has been made sweeter and better by him, and everybody mourns the loss of an honorable and useful citizen, a skilful physician, a trusted friend. But everybody is willing to go on, perpetually subjecting physicians to the same hardships which have carried away so many brilliant physicians in the prime of their lives, when they might have accomplished the most for their families and science, little thinking that the physician, although he is willing to face all sorts of dangers, is, after all, human; that he needs rest, relaxation, sleep, encouragement, sympathy and appreciation, just as much, if not more so than other good citizens.

Reading maketh a full man, conference a ready man, and writing an exact man.—*Bacon, Essays.*

IF we accept these propositions by the great philosopher as truisms, and as necessary for best fitting ourselves for the battles of life, it would seem that no man could be complete, as far as it is possible to be so, in whatever station he may be, and we refer now particularly to professional men, without enjoying the three privileges above mentioned.

The wise man will read, and that is a good way toward wisdom, if he reads what *Ruskin* calls

> . . . the studied, determined, chosen addresses of the wisest of men . . . for these are all at your choice; and life being short and the quiet hours of it few, we ought to waste none of them in reading valueless books.

Most professional men read, and read good books too, and there is never a time when they can very well get along without reading. They may not all have read *Plato*, or *Homer*, or *Virgil*, or *Kant*; but they may have read *Max Müller's* lectures, and *De Quincy*, and *Addison*, and *Macaulay*, and *Ruskin*, and *Carlyle*, and *Mathew Arnold*, and *Shakespeare*, and *Irving*, and *Hawthorne*, and the *Bible*, and they have certainly read professional books, of which we have so many good ones, and also many worthless ones.

So we will assume that professional men are *full men*, in the language of *Bacon*—that they are men of reading.

Then comes the privilege of being *a ready man*; a man used to conference and debate; a man of ready wit and speach. No one can be a ready man in conference who is not used to speaking in public and no one can creditably acquit himself in an assembly of men, as well informed as himself, unless he has gained the experience acquired only by continued trials and failures, and patient toil;

> . . . not for the gratification of applause and vanity alone, but for the power

for good it gives him, and for the privilege of associating and measuring swords with sensible and well-informed persons, which are always more desirable company than fools or ignorant persons, whether they are seen in the company of the sensible ones or not,

. . . as *Ruskin* puts it.

We might therefore assume, that individuals who do not associate with other persons in conference, persons interested in the same work as they themselves are, or in fraternal societies, devoted to the mutual good of the fraternity and its members, cannot be *ready men*,—cannot be as good men as those who thus associate together. It would seem that such persons remain on an inferior level and their company is neither instructive nor profitable.

Then come the *exact men*, who learn to be exact from writing. We might again quote from *Ruskin* and say,

. . . whatever bit of a wise man's work is honestly and benevolently done, that bit is his book, or his piece of art. It may be mixed with evil fragments, it may be ill-done, redundant, affected work, but if you read rightly, you will easily discover the true bits, and those *are* the book.

Many consider their education complete when they have done a certain amount of reading in college or elsewhere, but is our education ever completed and do we not learn as long as we live? The otherwise despisable uneducated "healer" who "heals" by nature's remedies can often teach us a useful practical lesson; so can the old nurse at the bedside; so can the experienced pharmacist; so are we taught to do better by our failures and trials. But nothing has a tendency to so sharpen our wits, concentrate our thoughts, shorten our sentences and make us logically exact, as writing does. And we will think twice, nay many times, before we put our thoughts and experiences in writing, to be read by men as well or better informed than ourselves; for our written work will reflect upon us fearfully, stronger than any mirror can, and the world will soon find out what stuff we are made of.

Writing does make an exact man, and who can deny it?

The one that neglected to write down his thoughts in his younger days, or neglected to compare his written thoughts with the writings of other men critically, will find himself seriously wanting in exactness in after life, and it will worry him, and make him unhappy, and he will never be able to add a single new or original thought to his science, for he did not learn the use of the tools whereby his thoughts could have been put in proper form. All are not cut out for writers, but everyone can certainly acquire enough knowledge to correctly report his impressions, to relate a narrative accurately, even though he cannot mix the colors artistically and effectively.

And that is probably what *Lord Bacon* means. But everybody should certainly try it, as *Ruskin* again puts it:

. . . that you may determine to the best of your intelligence what you are good for, and can be made into.

So please try to be, not only *a full man through reading, or a ready man through conference, but also an exact man through writing.*

LITERARY REVIEW—BOOKS RECENTLY PUBLISHED.

International Clinics. Volume I. Third Series, 1893. A quarterly of Clinical Lectures on Medicine, Neurology, Pediatrics, Surgery, Genito-Urinary Surgery, Gynæcology, Ophthalmology, Laryngology, Otology, and Dermatology, J. B. Lippincott & Co., Philadelphia, Pa. Price per volume; Cloth, $2.75; half leather, $3.00. Sold by subscription only.

The work is one volume of the third series *International Clinics*, published by the Lippincotts since 1891. It contains 356 pages with a valuable index, and is profusely illustrated with three plates and eighteen figures.

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The lectures in this volume are, like those in all the preceding volumes of the Clinics, of the highest practical value; especially are they valuable for the full and clear discussion that is given to the treatment of a given disease. The Monthly most gladly recommends the series to the general practitioner, as a very great help in his every day work.

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PULMONARY TUBERCULOSIS IN THE LIGHT OF THE MODERN GERM THEORY.

By CHARLES F. PECKHAM, M. D., PROVIDENCE, R. I.

PULMONARY tuberculosis, in this climate, causes fully 14 per cent. of all the deaths, and is our most common infectious disease, sparing neither old nor young. There is no reason why this disease should not become as rare as leprosy, if the same care and persistence is used in fighting it that has been used in driving that loathsome disease back to its strongholds. It is one of the peculiarities of human nature, that things that are out of sight, although they may be doing great damage, do not receive much attention. It is for this reason, no doubt, that the ravages of consumption are allowed to go on unchecked, while leprosy, which shows itself mainly in outward manifestations, has been steadily fought.

In order to get a clear conception of a disease of a parasitic nature, two things must be borne in mind: First, that every culture of an organism varies in virulence in the same manner that one sample of aconite root may be of greater power than another of the same kind. Secondly, that one person does not offer so favorable a soil for the growth of the organism as another would, in other words, is not so susceptible to the disease. In this way we can easily explain why some cases are severe and fatal and others are mild and recover.

Pulmonary consumption may be called a filth disease, inasmuch as it is spread by the undestroyed excretions of tuberculous people, disease. The manner in which people live probably has much to do with the spread of the disease. It is common to see in many houses, carpets that have been left in their places for years, and that are fairly stiff with filth. When one knows that these have warmed the feet and received the sputum of a tuberculous patient, it is no wonder that children, who have played on these carpets, show early tubercular manifesta-

tations. The wonder is that so many escape, if not Phthisis, then Diphtheria or some other disease of the mucous membranes.

Another way in which the disease is spread is by the act of expectoration, so common on the street and in public places and vehicles. This expectoration, dried and powdered and borne about by the wind, becomes a fertile source of the disease, being in many cases a fairly pure culture of the tubercle bacillus.

Milk may possibly be a causative factor, getting its charge of bacteria, either from tuberculous milch cows, or from contamination with dust. The bacteria would be destroyed in a normally active gastric juice, but, on the other hand, some of the germs might find lodgment on an inflamed mucous membrane in the pharynx or larynx, and prove a starting point for the disease.

The method of invasion of the lung tissue is extremely interesting, and explains how the effect of a bronchitis may last years, and suddenly break out into a tuberculosis of the lung. The advent of the tubercle bacillus into the lung tissue, regularly depends upon a primary inflammation of the bronchial mucous membrane. The bacillus grows upon this inflamed membrane, enters the lymph stream and is carried on to be filtered out by the bronchial lymph glands. Here the disease may remain quiescent for years, without giving the patient any trouble, and at the necropsy two or three cheesy glands may be found, containing many tubercle bacilli and spores. On the other hand, the gland may soften and break down, and either discharge its contents into one of the pulmonary vessels, or into the lung tissue. In the first case a miliary tuberculosis of the lung tissue will result, which may in time become diffuse. *Dr. J.S. Ely*, of New York, has prepared some exceedingly interesting specimens, showing the encroachment of an area of tubercular inflammation upon the wall of an artery, and the formation of a mass partly occluding the lumen of the vessel. This shows very well how the bacilli can be swept off by the onrushing stream of blood and be carried into the lung to set up a further inflammation. In the second case a Tubercular pneumonia will develop, limited to the point of rupture and possibly extending.

After these conditions are established one of two things may happen. *First*, the process may extend and the newly formed tissue break down, by reason of its low vitality and the arteritis regularly found in tubercular tissue, and a cavity will be formed. More and more of the lung tissue will be absorbed by the inflammation, and the patient will finally die of exhaustion or of intercurrent hæmorrhage. While this is going on the patient will be expectorating an abundance of tubercle bacilli. *Secondly*, the toxines excreted by the bacteria may cause a growth of fibrous tissue around the tubercular nodules, of sufficient thick-

ness to shut off the areas from the surrounding lung. In this case the papatient will recover, and may possibly be troubled by a cough, the effect of irritation from the fibrous areas. After death these cheesy areas will be found in the lung, surrounded by fibrous tissue, and containing an abundance of tubercle bacilli and spores. Again, under a transient inflammation, or possibly a depression of the general health, the areas will break down, the capsule become perforated and a diffuse tubercular pneumonia will result. This may, in one way, account for the phthisis which sometimes follows an acute lobar pneumonia.

A third method of infection is by the direct inhalation of the tubercle bacillus, and their passage into the alveoli. For physiological reasons, this is probably the rarest manner of receiving the infection. The tubercular pneumonia may also be a part of a general tuberculosis.

Tuberculosis has, by the investigations of Koch, been proved to be regularly caused by the action of the tubercle bacilli upon the tissues. Therefore, if the bacillus can be demonstrated in the sputum of the patient suffering from a lung disease, a diagnosis is established.

The tubercle bacilli are little filamentous rods, two to four micromillimeters in length, or about one fourth to one-half the diameter of a red blood corpuscle. They closely resemble the bacillus of leprosy, both in their shape and staining properties. They often contain spores in their interior, giving them a beaded appearence. They do not grow with any degree of rapidity at a temperature lower than that of the human body.

The examination of the sputum for the tubercle bacillus as a means of establishing a diagnosis, although very little practiced at the present time, seems destined to come more and more into general use as years go on. It is true, the methods now used in staining are complicated and require more or less manual dexterity for their successful operation, but a little careful practice will easily overcome the difficulty.

There are two methods of staining in vogue at the present time, both using aniline red or fuchsine, with some other substance such as aniline oil or carbolic acid to hasten the staining process.

The solutions used in the carbolic acid process give good results, keep well and are not disagreeable to use. The solutions used in this stain are the following:

1. Alchoholic solution of fuchsine, 10.
   Carbolic acid, 5.
   Distilled water, 100.

2. Nitric acid, 5.
   Alchohol, ad 100.

3. Dilute alcoholic solution methylene blue.

The sputum is first spread out on a plate and looked over for particularly promising shreds of mucous or connective tissue. One of these samples is carefully spread out in a thin film on a cover glass, and is allowed to dry in a warm place. When it is thoroughly dry, it is passed through the flame of an alchohol lamp three times, to coagulate the mucus, and a drop of the staining solution is placed in its center. The cover glass is then heated in the flame, until it just steams, and is then set aside, the process being completed in five minutes. After staining with solution 1, the sample is washed in solution 2, until the color disappears. This latter process is to remove the stain from other bacteria than the tubercle bacilli, which would otherwise obscure the test. The slide is then stained lightly with methylene blue, for differentiation, dried and mounted in Canada balsam.

A 1-12 immersion lens will show the bacteria very well. In examining a slide for the bacilli, the field should first be carefully looked over with rather a low power, say an eighth, for masses of red coloration, which usually mark the presence of the bacteria. These masses are afterwards examined with a higher power. An illumination with green light makes a very good background, especially at night.

After a careful study of the subject from the bacteriological standpoint, the following conclusions may be drawn:

1. That the laity should be educated and aroused to the danger of tubercular infection.

2. That the sputum of tuberculous patients should be burned in every case, whether mild or severe.

3. That an examination in many cases, which are treated as chronic bronchitis, would reveal the presence of the tubercle bacillus, and that it should be much more often done.

4. That cases of tuberculosis should be reported to the health authorities, just as other contagious diseases, and, that the same rules should apply to them.

5. That the rooms and clothing of tuberculous patients should be properly disinfected.

6. That, as an extreme measure, the careful isolation of all tubercular patients would ultimately stamp out the disease.

176 Benefit Street.

The following is the latest joke by the junior apprentice: "Stamps, please," curtly said the young lady. "With or without?" queried the facetious drug clerk. "With or without! Without what?" was the indignant inquiry. "Whiskers, ma'am. One-centers have no whiskers on Columbus. The two-centers have."—*Exchange.*

A REPORT OF TWO CASES OF POISONING, BY TYROTOXICON, FROM MILK, WITH AN ANALYSIS OF THE MILK, BY PROF. JOHN TOBIN.

THIS REPORT WAS MADE BY DR. H. C. MACKAYE, SECRETARY OF THE "NEWPORT SANITARY PROTECTION ASSOCIATION," TO A MEETING OF THE COUNCIL OF THE ASSOCIATION, HELD OCT. 31, 1893.

GENTLEMEN—On Sept. twentieth last, a person came to my office and told me the following story:

On the morning of that day "A" and "B" adult females were seated at the breakfast table. Before them were two dishes of oat meal, cooked in the usual way, with water. Just as they were about to eat it the family milk man arrived. He was requested to pour from his can a portion of milk on each saucer of oat meal. He did so, the residue being placed in the receptacle usually used for containing it.

"A" and "B" partook of the oat meal and milk. In about five minutes thereafter, and before they had eaten anything else they became nauseated; vomiting, with griping pains in the abdomen, forthwith ensued; afterwards purging. These symptoms, together with dryness of the throat and mild headache, yielded to domestic remedies and passed away within twenty-four hours. No physician was called.

Another person, who was present and ate of the oat meal without the milk, was not made ill, but on tasting the milk, by itself, she, in turn, suffered with the same symptoms as the other two, but in a very mild form.

A sample of this milk was furnished to me, and after consultation with several members of the Council of this Association, the aforesaid sample was delivered to Prof. John Tobin, on Sept. 24. His report thereupon is herewith submitted:

PROF. JOHN TOBIN'S REPORT—ANALYSIS AFTER VAUGHN'S METHOD.

"The milk was contained in an 8 oz. milk bottle. When received it contained about 5 ozs. The milk had decomposed, separating into two layers. It was filtered through Swedish filter paper, the filtrate, at first, being clear and colorless, but on standing assumed a light yellow color and became slightly turbid. After making the filtrate slightly alkaline with a dilute solution of sodium hydrate (the original filtrate being acid), it was shaken with ether in a separating funnel, and allowed to stand over night. A thick emulsion formed, which was separated from the ether with much difficulty. When separated, the ethereal solution, which was colorless, was allowed to evaporate spontaneously on a watch glass. The residue was dissolved in a few drops of water

and a portion of the solution was added to a mixture of one drop each of solutions of ferric chloride and potassium ferro-cyanide. A blue precipitate was formed showing that the substance had reduced the ferric salt. I then put a few drops of the solution on my tongue, and within a few minutes I was taken with a retching, which occurred about three times during one and a half hours. At the same time I experienced an attack of headache and drowsiness, together with a slight pain in the stomach and dryness of the throat. After an hour and a half the symptoms disappeared entirely, due probably to the exceeding smallness of the dose.

The rest of the solution was allowed to evaporate in vacuo over concentrated sulphuric acid, depositing colorless and characteristic needle-shaped crystals, when viewed under the microscope.

The amount of the poison extracted, I should estimate, weighed only a few milligrams.

The aqueous solution from which the tyrotoxicon was extracted was acidified, hydrogen sulphide water added, and the solution kept warm for fifteen minutes over the lamp. At the end of this time the solution remained clear."

This report, as you see, makes clear two points; first, this milk contained tyrotoxicon; second, it did not contain any mineral poison.

So little is commonly known about Tyrotoxicon that, in order to make this report more complete and useful for future reference, I shall venture to add some statements, culled from the literature of the subject, as it exists to-day.

In 1883–84 there were reported to the State Board of Health, of Michigan, about 300 cases of poisoning by cheese, all caused by eating portions of twelve cheeses, which were submitted to *Prof. Victor C. Vaughn*, now professor of Hygiene and Physiological Chemistry to the University of Michigan.

From portions of these cheeses Vaughn isolated a ptomaine, which he christened "tyrotoxicon," from turos, cheese, and toxicon, a poison.

You have already obtained an idea of the method of analysis and identification from *Prof. Tobin's* report.

The poison in cheese had been the subject of investigation long before Vaughn began his experiments.

As early as 1827, *Hunnefeld* had made some analyses and experiments with the extracts on the lower animals. He was followed by *Serturner* and *Braconnot*. These experimenters attributed the poisonous qualities of the cheese to the fatty acids (sebacic and caseic), but in 1852 *Schlossberger* made experiments with the pure acids and proved them innocuous.

No investigations of practical importance were made at a later date

till those of Vaughn, already alluded to above. More recently he has established the probable identity of tyrotoxicon with Diazobenzol combined with an acid, having about this formula $C_6H_5N_2C_4H_7O_2$.

SOURCES OF TYROTOXICON IN MILK.

1. Normal milk, when kept tightly bottled in clean bottles and in a cool place (i. e. not exposed to heat), in three months and probably less.

2. Fresh milk in contact with old milk in a cool and proper place, in twenty-four hours.

3. Fresh milk sealed up in cans, without being cooled and exposed to oscillation and heat in a few hours.

4. Fresh milk exposed to contaminated and impure air, even for a very short time, in a few hours.

Example 1. Vaughn filled several gallon bottles "with normal milk closed with glass stoppers and allowed it to stand at the ordinary temperature of the room. From time to time a bottle was opened and tested for tyrotoxicon. These tests were followed by negative results till about three months after the experiment was begun. Then the poison was obtained from one of the bottles."

Example 2. In 1889 *Prof. Leonard P. Kinnicutt*, of the Worcester, Mass., Polytechnic Institute, obtained tyrotoxicon, by Vaughn's method, from milk which had stood over night in a can, supposed to have been insufficiently cleaned of milk which it had before contained, but standing in a cool and proper place. Five persons were poisoned from this source.

Example 3. In 1886 *Newton & Wallace* obtained tyrotoxicon in milk which had been treated as follows: The milk was taken directly from the cows without any cooling and placed in cans. It was then carted eight miles during the hottest part of a warm August day (this occurred in N. Y. state), and delivered at several hotels for immediate use. Seventy-three persons were seriously poisoned by it.

Example 4. A case of ice-cream poisoning related by Vaughn. "The cream was frozen in the back end of an old wooden building. It is surrounded by shade, has no underpinning, and the sills have settled into the ground. There are no eave-troughs, and all the water falling from the roof runs under the building, the streets on two sides having been raised since the building of the house. The building had been unoccupied for a number of months, consequently has had no ventilation, and what is worse, the back end, (where the cream was frozen,) was last used as a meat market." The cream stood in this part of the building for upwards of two hours. Eighteen persons were poisoned by eating this cream.

A further illustration of this cause will be shown in *Dr. Mesic's* cases, quoted at length further on.

SYMPTOMS.

Nausea. In a few minutes to some hours.

Vomiting. In a few minutes, when dose is of medium size or stomach empty. May not take place for some hours, or be absent when dose is large.

Purging. After some hours, may be absent after large dose. (vide Mesic's cases).

Somnolence. Beginning almost at first and lasting well on, even in convalescence.

Griping pains in abdomen, and headache. Contemporary with nausea, vomiting, and purging.

Collapse. Early in mortal cases, with coma, subnormal pulse and temperature.

Skin Symptoms. Rare. (vide Mesic's cases, infra.)

Tongue. Heavy white coating; later brown, in some cases.

Vessel. An account of the following cases of tyrotoxicon poisoning, quoted, as indeed are almost all my facts from Prof. Vaughan's writings, is of value as presenting a complete clinical picture.

Mesic's Cases. "September 23, 1887, I was visited by *Dr. A. G. Mesic*, of Milan, Michigan, who informed me that he had four members of a family under his charge, all of whom were seriously ill with peculiar symptoms which he believed to be caused by tyrotoxicon. Since Dr. Mesic has written out for me the history of these cases, I will insert his report in full, as follows:

"Saturday, September 17, while passing the residence of S. H. Evans, a respectable farmer, I was called in to see him. I found him, a man of about fifty years, spare and muscular—vomiting severely, with flushed face, but with a temperature of 96 degrees F. There was marked throbbing of the abdominal aorta; the tongue had a white heavy coating and the breathing was very labored. I set to work with the ordinary remedies to allay the vomiting, which had already continued for some hours. The vomited matters were colored with bile. Pupils were dilated, and a rash resembling that of scarlatina, but coarser, covered the chest, forearms, and legs below the knees, while the abdomen and thighs remained unaffected. As the bowels had not been moved since the beginning of the attack, I administered a purgative dose of calomel with a little podophyllin and rhubarb. On Sunday a small stool resulted. During that day and night, and the following day, the retching and vomiting continued. Small doses of carbolic acid seemed to give the most relief. After the movement of the bowels the

symptoms were somewhat more promising; but a heavy and unfavorable stupor was observable and persistent.

"On Sunday the coating of the tongue remained very thick, and had changed to a dark brown color. At first I thought that his symptoms indicated a depressed condition, which I had known in one instance to precede typhoid fever. However, after a few days, I concluded that I must look for the cause of the condition among the poisons; but I could think of no one poison which would be likely to produce all the symptoms observed. During Monday, Tuesday, and Wednesday, there was but little change, and the treatment was continued.

"On Thursday morning I found the son Arthur, a lad of eighteen years, strong and vigorous, suffering with the same symptoms, only in a more violent form. After supper on Wednesday evening he was taken with nausea and vomiting. He had no rash, but the symptoms were otherwise identical with those of the father, except in being more severe. I gave a cathartic, which acted only slightly.

"At my evening visit I found Mrs. Evans, a lady about forty-five, previously in good health, with the same symptoms. In this case the stupor was more marked from the first. I was unable at any time to obtain any cathartic action in this case. Copious enemata of warm water were used, but I succeeded only in washing some hardened lumps from the rectum. By this time I had concluded that the poison was most likely tyrotoxicon.

"On Friday morning the only remaining member of the family at home, Miss Alma, sixteen years of age, was affected in the same way as the others. On that day I went to Ann Arbor, and gave a history of the cases so far to Dr. Vaughn, who, from the symptoms, thought that my diagnosis was most probably correct, and he advised with me as to treatment, which I carried out. I gave two grains of sodium salicylate every four hours, and used small doses of the tonics and stimulants, quinine, nux vomica, digitalis, whiskey, and the aromatic spirits of ammonia. On Saturday the symptoms in all remained unimproved, and in the mother and son the stupor and labored breathing grew more marked.

"On Sunday, I again went to Ann Arbor, and brought Dr. Vaughn with me to see the patients. The temperature of the mother on Sunday was as low as 94 degrees F., and that of the son 95 degrees F. Dr. Vaughn agreed with me as to diagnosis and treatment. Sunday evening the patients were all removed to the house of a neighbor, about 40 rods distant (the reason for this will be given later). Dr. Vaughn and I both expressed the fear that the mother and possibly the son, would not live through the night. Both of these rapidly grew worse, and the son died at 7.45 A. M., and the mother at 4 P. M. Monday.

"During Monday the daughter grew rapidly worse, and at the time of her mother's death could not be aroused, and practically she remained unconscious from that time on. The father was very weak, but retained his consciousness all the time. Convulsive movements of the limbs had been noticed in the son, but not in the mother. These now became more marked in the daughter, who remained in the heavy stupor, with labored breathing, until 5 P. M. Thursday, when she died.

"Mr. Evans has slowly improved, and now, October 18th, is able to walk about the room. The sodium salicylate, even in the small doses used, seemed to cause severe headache, so apparent was this that the drug was discontinued, and drop doses of amyl nitrite, given every hour, seemed to relieve the pain in the head. His temperature remained below the normal until Thursday, October 14th, when it reached the normal. After this it was found once as high as 99.5 degrees F., then 99 degrees F., then again normal where it remains.

"All complained of a burning constriction in the throat, and difficulty in swallowing, and all, as long as they were conscious, frequently called for ice. In all, the pulse was rapid and feeble, and death seemed to result from failure of the heart. Those who died voided urine involuntarily, while Mr. Evans passed small quantities frequently, and for this buchu and uva ursi were given. During his convalescence small doses of morphine were given, as he was unable to sleep, and became very restless. He is now taking teaspoonful doses of the elixir of calisaya and iron every four hours."

"As stated above by Dr. Mesic, I first saw these patients Sunday, September 25. On a sofa in the room we found the daughter, Alma. She had been vomiting during the day, and seemed much exhausted. She was not inclined to talk, and seemed to be in a stupor, though when spoken to she responded rationally. Her pupils were slightly dilated, her tongue coated, her pulse 120 and weak, her face flushed, and a violent throbbing could be felt over the abdomen, which was retracted. Her temperature was 96 degrees F.

"In another room were the father, mother, and son, two of them dying. The father was rational, and talked with some freedom when I asked as to the kind of food they had been eating, etc. His pupils were normal. His face could not be said to present any peculiar feature. His pulse was rapid, breathing somewhat labored, and the throbbing of the abdominal parts was plainly felt. The abdomen was retracted, and there was no pain on pressure. He complained of a burning constriction of the throat, swallowed with difficulty, and said that his throat and stomach felt as though they were on fire.

"The mother lay perfectly still with eye-lids closed, as if in a deep sleep. Her pulse was rapid, her face had a livid flush, her breathing

was about 35 per minute, and labored. The skin was cool, but neither abnormally moist nor specially dry and harsh. She could not be aroused. In fact, she was comatose.

"The son rolled uneasily from one side of the bed to the other. His breathing, also, was very labored. His eye-lids were closed, and the pupils were markedly dilated, and did not respond to light. He could not be aroused. In mother and son, as well as in father and daughter, the abdomen was retracted, and the throbbing of the abdominal aorta was easily felt.

"Now, to what were these symptoms due? They were certainly those of some poison. Dr. Mesic had brought me some of the vomited matter, which I tested thoroughly for mineral poisons, with negative results. The symptoms certainly were not those of morphine, strychnine, digitalis or aconite. They did have some resemblance to those of belladonna, but yet they were not the symptoms of belladonna. The pupils were not as widely dilated as they would be in belladonna poisoning. There was in none of these persons the active delirium of belladonna poisoning. There was no picking at the clothing, no grasping of imaginary objects in the air, no hallucinations of vision. Surely it could not be any vegetable alkaloid with which I was familiar.

"On the other hand, we know that nausea, vomiting, headache, dilatation of the pupil, rapid pulse, heavy breathing, constipation and great prostration, with stupor, do occur in cases of poisoning with certain ptomaines. Therefore we began to look for conditions which would be favorable for the production of putrefactive alkaloids. These conditions we were not long in finding.

"The family, which consisted of the four persons sick, and of a daughter about twenty years of age, who was away from home at the time when the others were taken ill, and for some months before that time, was evidently a tidy one. This was shown by their personal appearance, and by the clothing and bedding. But the house in which they lived was very old, and very much decayed. Mr. Evans had purchased the farm six years ago; and for some three years past, at least, they had been troubled every now and then, one or more of the family, with nausea and vomiting, followed by more or less prostration. But in no instance, up to the present illness, had the symptoms been sufficient to cause them to summon a physician. The family had worked hard in order to pay for the farm, and had determined to make the old house do until they were out of debt. Even before this family had moved to the farm, the house had been known among the neighbors as an unhealthy one, and there had been much sickness and a number of deaths among its former tenants.

"The house is a frame one, and one of the neighbors said to me that

it was an old house when he came to the neighborhood thirty-seven years ago. It consists of two rooms on the ground floor, with attic rooms above. The frame rests upon four large logs or sills, which lie directly upon the ground, and are thoroughly rotten. There is no cellar under any part of the house. From the front at least, the surface slopes toward the house, and the rain-water runs under it. In the floor of one room a trap-door had been placed, and directly under this a small excavation had been made for the purpose of collecting the rain-water when it accumulated under the house. Although this pit was dry at the time of our examination, its sides and bottom were marked with cray-fish holes, showing that water had stood in it. The floor was laid of unjointed boards, and every time that it was swept much of the filth fell through the cracks, and every time that the tidy housewife scoured and mopped the floor, the water, carrying with it the filth, ran through the crevices, and thus the conditions most favorable for putrefactive changes were brought into existence and maintained.

"One corner of one of the rooms had been transformed into a small room, or buttery, as it was called, and in this, on shelves, the food was kept. On account of the more frequent scouring demanded by that part of the floor enclosed in this buttery, the boards had rotted away, and a second layer of boards had been placed over the original floor. Between these two floors we found a great mass of moist, decomposing matter, the accumulations of years, which the broom could not reach. When this floor was taken up, a peculiar, nauseating odor was observable, and was sufficient to prduce nausea and vomiting in one of the persons engaged in the examination. Some of the dirt from beneath the floor, and some of that which had accumulated beneath the boards in the buttery, were taken for further study.

"The condition of the house was supposed to be unfavorable to the patients, and for this reason they were moved, as Dr. Mesic has stated, to the house of a neighbor. Of course, thorough examination of the house was not made until the patients had been removed.

"Special inquiry was now made concerning the food used by this family. They had been living very simply. They lived upon bread, butter, milk, and potatoes, with coffee and ripe fruit. They had eaten no canned foods for months. They ate but little meat. Occasionally a chicken was killed and served, and, rarely, some fresh meat was obtained from the village. During the week in which they were taken ill, all the meat used consisted of slices from a piece of bacon, the only meat which was kept in the house, and a chicken. None of the latter remained, but the bacon was examined. It seemed in perfect condition, and contained no trichinæ. Moreover, as has been seen from the history of the cases, all the members of the family were not made sick by

any one meal, but the opportunity of obtaining the poison must have been present for some time. Moreover, the fact that previous similar, but less severe attacks had occurred at intervals for the past three years, convinced us that the poison must owe its origin to some long existing condition.

"The drinking-water supply was also investigated. The water was obtained from a shallow well, and some of it was taken for analysis. But several families had for years used water from this well, and had remained healthy.

"The milk used by the family was studied. Of course we could get none of that which had been used before the members of the family were stricken down. As soon as he made the diagnosis of tyrotoxicon poisoning, Dr. Mesic ordered the discontinuance of the use of milk, not only with the sick, but he forbade the daughter, who had returned, and any of the visitors using it. Mr. Evans owned four milch cows, and they were supplied with fair pasturage and abundant water. The greater part of the milk was placed in tin cans which were set in a wooden trough in the yard, and surrounded by cold water. The covers of the cans were arranged so that the air could have free access to the milk, and were left in this position until the milk was thoroughly cooled. Indeed, the cans were furnished by a creamery company, which followed the directions which I have previously given for the care of milk. On his first visit to me, Dr. Mesic brought some of the milk from one of these cans. This I examined, but failed to find tyrotoxicon in it.

"However, the family did not drink any of the milk from the cans. That which they did use was kept in the buttery which I have described. Here it stood upon a shelf, and some members of the family, at least, were in the habit of drinking from it between meals. This was especially true, it is said, of the son. He would frequently come from his work in the fields, go into the buttery and drink a glass or more of the milk. Mr. Evans states that he frequently observed that the taste of the milk was not pleasant. On my first visit to the premises I advised that some of the milk should be taken from the cans, allowed to stand in the buttery over night, and be sent to me the next day. This was done, and in the milk we found tyrotoxicon, not only by the employment of chemical tests, but by poisoning a kitten with it.

"On the death of the mother and son, Dr. Mesic asked for a post-mortem, but the friends objected, and the undertaker used arsenical embalming fluid, so that, although consent was subsequently obtained, it was decided that the examination would be so vitiated as to be worthless. On the death of the daughter, the coroner summoned a jury and held an inquest. The post-mortem was conducted by *Dr. George A. Hendricks*, in the presence of the jury and several physicians who had

been invited. Dr. Hendricks has kindly furnished me with his report, which I present here in full.

"The autopsy was held fifteen hours after death. The abdominal viscera were first examined. The great omentum was small, in normal position, covering the small intestine. The small intestine was moderatly distended with flatus. The jejunum was ash-green in color; the ileum purplish-green. About eighteen inches from the termination of the ileum was found a diverticulum two inches in length. The small intestine contained very little alimentary matter. The vermiform appendix was free, contained some small fecal lumps, and showed no evidence of inflammation. The caecum, ascending, transverse, and descending colon were empty, and their circular fibres were tightly constricted, except at intervals where the intestine was distended with gas. The sigmoid flexure was moderately distended with gas, and the rectum contained small bits of fecal matter. The stomach was somewhat contracted and lay wholly upon the left side of the medium line. It contained a few ounces of fluid. Its extremities were ligated and the organ removed. The mucous membrane of the stomach and the intestines were not examined until they reached the chemist. The duodenum was distended with flatus. The liver was normal in size and appearance. The gall-bladder contained about one ounce of bile. The spleen was normal. One-half ounce of fluid deeply stained with blood was found in Douglas' cul-de-sac. The uterus, Fallopian tubes, and ovaries were deeply congested. The left ovary was enlarged and presented on its posterior surface a hœmorrhagic spot, oval, about one-half line in length, and several other less distinct ones. The right ovary was normal in size and showed numerous Graafian scars. The ureters and bladder were normal; the latter contained a small amount of urine. The peritonæum, pancreas, and kidneys were perfectly normal.

"The thoracic cavity was next opened. The lungs were normal there was about one-half ounce of free serum in the left pleural cavity; none in the right. Pericardium normal; right auricle in diastole; left auricle and both ventricles in systole.

"The dura mater showed venous congestion; the arachnoid normal, the pia mater congested. On the surfce of the centrum ovale, small drops of blood oozed from the divided vessels. The large veins of the velum interpositum were distended. Third and fourth ventricles were slightly distended with serous fluid, but the walls were normal. There seemed to be slight softening of the optic thalami. The sub-arachnoid fluid was about twice the normal quantity.

"On examination of the mucous membrane of the stomach and intestine in the presence of the chemist, *Prof. A. B. Prescott*, nothing abnormal could be found. The membrane was stained with bile, but

there was not the slightest redness. The solitary glands were distinct, but not at all inflamed. Peyer's patches were normal.

"It will be seen that there existed no lesion which would account for the death. The venous congestion observed in the brain would follow from failure of the heart.

"Some of the post-mortem appearances bore a striking resemblance to those which I had observed in cats poisoned with tyrotoxicon. This was especially noticeable in the condition of the mucous membrane of the stomach and intestine. Tyrotoxicon produces the symptoms of a gastro-intestinal irritant, but not the lesions. The contraction of the circular fibres of the intestine, which undoubtedly caused the constipation, I had also observed in cats that died from tyrotoxicon poisoning without either vomiting or stool. The action of this poison upon the stomach and intestine must be through the nervous system. Small doses cause both vomiting and purging, while after large doses vomiting may be impossible, and obstinate constipation may exist. Both the vomiting and purging after small doses are undoubtedly due in part to increased activity of the circular fibres of the muscular coats, induced through the nerves; and the inability to vomit, and the constipation, one or both of which may be observed after large doses of the poison, are due to spasm of the same muscles, induced in the same manner.

"*Prof. A. B. Prescott* was requested by the coroner to analyze the material for mineral and vegetable poisons. He made analyses of the stomach and part of its contents, and a portion of the liver. His results were wholly negative.

"*Novy* tested a cold-water extract of the finely divided intestine for ptomaines. The fluid, which was acid in reaction, was filtered, then neutralized with sodium bicarbonate, and shaken with ether. The ether, after separation was removed, and allowed to evaporate spontaneously. The residue was dissolved in water, and extracted again with ether. This ether residue gave the chemical reactions for tyrotoxicon, and a portion of it was administered to a kitten about two months old. Within half an hour after the administration the kitten began to retch and soon it vomited. Within the next three hours it was noticed to vomit as many as five times. The breathing became rapid and labored. The animal sat with its head down, and seemed greatly prostrated. The pupils were examined, but could not be said to be dilated. There was no purging. The retching and heavy breathing, with evidences of prostration, continued more or less marked for two days, after which the animal slowly improved.

"A quantity of fresh milk was divided into five portions of one quart each, placed in quart bottles which had been thoroughly cleansed, and treated in the following manner:

"No. 1 consisted of the milk only, and was employed as a control test.

"No. 2 was mixed with a drachm of vomited matter.

"No. 3 was treated with a portion of the contents of the stomach.

"No. 4 was treated with an aqueous extract of the intestine.

"No. 5 was treated with a small portion of the soil which had been taken from the floor of the buttery, stirred up with water.

"These bottles were placed in an air-bath, and kept at a temperature of from 25 degrees to 30 degrees C. for twenty-four hours. Then each was tested for ptomaines. No. 1 yielded no tyrotoxicon, while all the others contained this poison. The tests were both chemical and physiological. All of the samples yielded a non-poisonous base when treated according to *Brieger's* method, and the same substance was obtained from perfectly fresh milk. It is most probably formed by the action of the heat and reagents employed in this method. This base was obtained in crystalline form, and several portions of it were administered to kittens without any effect. The further study of this body will be of interest to toxicologists, because it gives many of the general alkaloidal reactions. At first we supposed it to be Brieger's neuridine, and this supposition may still be correct, but, as we obtained it, it gave some reactions which are not given by neuridine. Further investigations will be made on this point.

"Tyrotoxicon was obtained from the filtered milk by two methods: (1) The one which we have previously used, and which consists in neutralizing the filtered milk with sodium bicarbonate, and extracting with ether. That portion of the poison employed in the physiological tests was obtained in this way, and in order to be sure that no poison came from the ether, the extract from the milk to which nothing had been added was given to a kitten and was found to produce no effect. (2) The filtrate from the milk was heated to 70 degrees C. (158 degrees F.) (tyrotoxicon decomposes at 91 degrees C.) (195 degrees F.) for some minutes, and filtered. This filtrate, which was perfectly clear, was treated with a small quantity of nitric acid in order to convert the tyrotoxicon into a nitrate, then pure potassium hydrate in the solid form was added until the solution was strongly alkaline. This solution was concentrated so far as it could be on the water-bath. The potassium compound of tyrotoxicon is not decomposed below 130 degrees C. (234 degrees F.) The dark brown residue, after cooling, was examined with the microscope and found to contain the crystalline plates of tyrotoxicon-potassium hydrate, along with the prisms of potassium nitrate. The former was separated from the latter by extraction with absolute alcohol and filtration. The alcohol was evaporated to dryness on the water-bath, and the residue again extracted with absolute alcohol.

From this alcoholic solution tyrotoxicon was precipitated with ether. The precipitate was decomposed by adding acetic acid and heating, the tyrotoxicon being broken up into nitrogen and phenol. The phenol was recognized by precipitation with bromine water, and by other well-known tests.

"On October 8th., the coroner's inquest, which had been adjourned after the post-mortem in order to await the results of the analysis, was resumed, and after hearing the testimony in accordance with the above stated facts, the jury returned a verdict of death from poisoning with tyrotoxicon."

The special points of interest in the cases which were the immediate occasion of my report are two; first, the sudden onset of the symptoms, suggesting the effects of arsenic or corrosive mercury, and explained by the fact that the poisoned milk was received upon an empty stomach and with only a very slight admixture of food; second, the fact that the milk was poured directly from the milkman's can upon the oatmeal and immediately eaten, and moreover, that the oatmeal was partaken of, by itself, without any abnormal result.

As it was not desired by the persons most concerned, to bring the matter in a formal way either before the community or any legal tribunal, all reference to their identity and that of the person furnishing the milk has been avoided.

In closing, a tribute is due to our milk men as a class. The fact that such cases occur relatively rarely, is owing to their care, and I am sure that no one will be more eager than they to learn from these and similar instances, the necessity of the greatest cleanliness and caution in handling the products of their dairies.

128 Mill St., Newport, R. I.

For Otalgia.—

℞ Menthol. . . . . .
Camphoræ, aa, ... grs. xx;
Liq. albolene, ... ʒi.—M.

Sig. Drop in ear p. r. n.

Chronic Constipation.—

℞ Strychnine sulph., ... grs. 1-40;
Pulv. ipecac. . . . . .
Ext. belladonna, ...
Ext. colocynth, co., aa., . . grs. 1-4;

M. ft. pil. No. I.

Sig. Four pills daily at first; then three and afterwards two.—*Dr. Delafield.*

"Were you ever treated by a physician?" asked the benevolent lady after she had listened to Sufferin' Simpkins' tale of sickness and poverty. "Only once ma'am," said the old fraud, "that was when old Doc Simmons asked us to take suthin."—*Boston Commercial Bulletin.*

ST. JOSEPH'S HOSPITAL.

ON August 1, 1891, the "Harris Estate" on Broad Street, in the city of Providence, was purchased with the intention of opening a Catholic Hospital. After a thorough renovation and alteration, the interior of the stately mansion was transformed into wards and hospital apartments; on March 19, 1892, the exquisite chapel on the second floor was dedicated and the new Hospital blessed by the Right Reverend Bishop. On the following month, April 6th, its doors were opened for the reception of patients.

As the Hospital and the good work that it proposes to do, and has been doing the past year may not be familiar to all of our readers, we quote the following from the first annual report:

"St. Joseph's Hospital is a Catholic hospital in the truest sense of the word. It admits sufferers of all kinds, whether afflicted with curable or incurable diseases, without regard to means, creed, color, sex or nationality, giving them the tenderest and kindliest attention from the devoted and self-sacrificing religions.

The people of Providence and vicinity hailed the new institution with unprecedented enthusiasm and showed their warmest approval of the new work of charity by an extraordinary generosity. Donations came from all sides. Non-Catholics vied with Catholics in their generous offerings.

But, no sooner was the Hospital opened than it was found inadequate to accommodate more than one-tenth of the sufferers that applied for shelter and medical treatment. The necessity of a new and larger building became imperative. Plans and specifications were received for the new Hospital, of which the eastern wing and centre building will be commenced this summer. To raise the funds for the new Hospital an association was formed, called "the Building Fund Association of the New St. Joseph's Hospital." The members of this Association promise to contribute at least one dollar per annum until the Hospital is built and paid for, and to take a personal and practical interest in all entertainments, lectures, concerts, and festivals undertaken for the benefit of the institution. We have full confidence that, under the protection of St. Joseph, this Association will realize its glorious hopes and complete its noble work for the honor of God and the welfare of humanity."

The following are the present Officers and Staff of the Hospital:

OFFICERS.

President: Rt. Rev. Matthew Harkins, D. D.
Secretary and Treasurer: Rev. William Stang, D. D.
Sister in Charge: Sister Mary Eulalia.

STAFF.

Visiting Surgeons: George L. Collins, M. D.; John W. Keefe, M. D.

Visiting Physicians: Frank L. Day, M. D.; John F. McCusker, M. D.

Visiting Ophthalmic Surgeon: Frederick T. Rogers, M. D.

Assistant to Visiting Ophthalmic Surgeon, J. M. Bennett, M. D.

Consulting Surgeons: Charles O'Leary, M. D.; Clarence T. Gardner, M. D.; J. M. Mitchell, M. D.

Out of Town: Dr. Hills, Woonsocket.

Consulting Physicians: Stephen H. King, M. D.; John M. Peters, M. D., R. F. Noyes, M. D.

Out of Town: Dr. Madden, Woonsocket; Dr. Curley, Newport; Dr. Kelliher, Pawtucket; Dr. Legris, Centreville.

Consulting Ophthalmic Surgeon: Dr. Horace G. Miller.

Resident Physician: Dr. Wm. F. Barry.

There were admitted during the year, 188 patients; of this number, 117 were medical and 71 surgical cases. Of the 117 medical patients, 68 were males and 49 females. There were discharged cured, 43; improved, 20; unimproved, 7; not treated, 5; died, 26; remaining in hospital, April 1, 1893, 16. Of the 71 surgical cases, 33 were males and 38 females. Of this number there were discharged cured, 41; improved, 5; unimproved, 1; not treated, 7; died, 6; remaining in hospital, April 1, 1893, 6.

The number of surgical operations for the past year were 26; of this number 13 were males and 13 females.

The following is a record of the operations with causes and results:

	Cured.	Died.	Total.
Abscess of Thigh	2		2
Amputation of Breast	6		6
Amputation at Shoulder Joint		1	1
Amputation of Leg	1		1
Amputation of Finger	1		1
Empyema—Resection of Ribs	1		1
Excision of Hips	1		1
Laparotomy for Appendicitis	1		1
Laparotomy for Ventral Hernia	1		1
Laparotomy for Ovarian Cyst	1		1
Operation for Necrosis of Inf. Maxilla	1		1
Perineal Section	1		1
Radical Cure of Labial Hernia		1	1
Removal of Malignant Disease of Glands of neck	1		1
Skin Grafting	1		1
Operation for Ingrowing Toenails	2		2
Supra-Pubic Cystotomy for Calculus		1	1
Tenotomy for Talipes Equinus	1		1
Wiring Patella—Old Fracture	1		1
	23	3	26

A Clinic for diseases of the Eye, Ear, Nose and Throat, was started Sept. 7, 1892, at which there had been treated 107 cases to April 1, 1893, necessitating 22 operations.

The following are the

RULES FOR THE ADMISSION OF PATIENTS.

1. All applications for admission of patients must be made at the Hospital, corner Broad and Plenty streets.

2. No insane persons, nor those suffering with venereal diseases consequent upon their own immorality, are admitted for treatment.

3. The Hospital extends its gratuitous aid to the truly needy. Such patients as are able to defray the expenses of their treatment are required to do so.

It is with a feeling of amazement and respect we note the rapid inauguration of a Catholic Hospital in this city.

The matter had been contemplated for some time, but it was not until Rt. Rev. Bishop Harkins, and Doctor Stang, Rector of the Cathedral, set themselves to work, that anything definite was accomplished.

Bishop Harkins, with his usual clear insight and praiseworthy sympathy for every suffering human being, decided that another hospital, somewhat different in scope and management from others now existing was needed, and he authorized the Clergy and Laity interested, to take the necessary steps. Rev. Dr. Stang, Rector of the St. Paul and St. Peter's Cathedral was intrusted with the charge of the work and it is truly wonderful how rapid the noble plans of the Bishop have been carried out by the pushing, energetic Dr. Stang.

In 1891 the St. Joseph's Hospital was only contemplated in the thoughts of a few men and nothing definite had been done.

Two and a half years later we find that a centrally located Hospital has been open for a year, and that good work has been done there, as far as its limited accommodations would permit, and the most surprising fact is, that a modern, spacious and beautiful structure is now nearing its completion, which will accommodate at least 200 patients. We cannot but express our profound respect and sympathy for such worthy and marvellous achievements.

Among the members of the Hospital Association and upon the Surgical and Medical staff of the Hospital, we notice many familiar names, of men of the highest integrity and ability, and we predict much success for this new and eminently useful institution.

False friends are like our shadow, keeping close to us while we walk in the sunshine, but leaving us the instant we cross into the shade.

SOME OBSERVATIONS ON TREATING CASES OF DIPHTHERIA.

Read in the Section on Diseases of Children, at the Forty-fourth Annual Meeting of the American Medical Association.

BY G. BENSON DUNMIRE, A. M., M. D.

Physician to the M. E. Orphanage of Philadelphia; Member of the American Medical, State Medical, Philadelphia County Medical, Pathological and Obstetrical Societies, Etc.

THERE is, perhaps, no subject at this time exciting more and deeper interest in the profession, certainly there is none more important than the management of cases of diphtheria. In this connection some general remarks seem necessary with reference to the ravages of the disease. The excess of deaths over births, which is depopulating the French nation to-day, is largely due to diphtheria. In England it is not confined to the large cities alone, but the rural districts are feeling its scourge.[1] The same may be said of the United States, where there is a growing dread of the disease and justly so, because of the gradual increase of cases, and deaths as well, which quite an extended correspondence with the different State Boards of Health, also the mortuary registers show, conclusively proving two things: 1, its infectiousness; 2, that the general efforts now put forth to stay its progress are inadequate.

As to its infectiousness in man, this has long since been settled in the affirmative and the question now is, What creature is not subject to the disease? since flying fowl, creeping beast, as domestic animals or pets, are susceptible, and, like flies, have the credit of conveying the disease. The cat's ability to contract and transmit diphtheria to persons has long been observed.[2] Animal susceptibility to inoculations with diphtheria exudate and cultures of the same, has frequently been utilized; making them the experimenting ground by which important data have been obtained; settling the question as to whether diphtheria is primarily a local, or a constitutional disease, in favor of the former. This has been proven by the elaborate investigations of Wood and Formad, Klebs, Löffler, Abbott, Welch and many others. But for the specific cause of the contagion we are indebted to Löffler for his discovery of the diphtheria bacillus, which bears his name. And no less important are the investigations of Abbott and Welch, who have established the fact that in the Löffler bacillus, we have the etiology of

1 Thorne Thorne's Work. England.

2 Noah Webster's Epidemic and Pestilential Diseases.

diphtheria, a factor of paramount importance in regard to its rational treatment and prophylaxis, again to be referred to.

With reference to the present effort not being adequate to stop the progress of the disease, we have to say that while this is true generally throughout the States, we are glad for one single exception which stands out conspicuously and alone, and is worthy of our respect and emulation. We have reference to Michigan and its State Board of Health, backed as it is by legislative enactments, not only requiring scientific investigation of disease and tabulating the same, but by an enforced system of isolation and disinfection, which has reduced, in 1889, the average number of cases per outbreak from 11.66, in which isolation and disinfection was neglected, to 1.56 when it was enforced, and deaths were reduced from 2.65 to 22,[3] showing very plainly that the disease cannot only be controlled, but that there is a possibility of stamping it out entirely. Until other States are guided by the State of Michigan, they will continue to write large bills of mortality; which brings us to the vital question of

ISOLATION.

In the management of cases of diphtheria, after what has been said it seems unnecessary at this late date and time to do more than refer to the excellent restrictions and preventions, even to minute details, issued and gratuituously furnished by a number of the State and local Boards of Health. But the great necessity is to have *enforced isolation.* Isolation, if not efficient, is no isolation at all. For instance, to quarantine the house is not isolation, when there is only a board fence or a wall to scale, between the quarantine and coveted liberty. Neither is it isolation, even against the physician's protest, for a mother of a poor family to separate and nurse one of her children sick with diphtheria in a down stairs, badly ventilated room, from the vitiated atmosphere of which she emerges to supply the others with the food which the husband is compelled to be absent to provide; for soon the whole family becomes a prey for the disease. To meet such an emergency one of two things is necessary; a nurse must be provided by the health authorities, or the patient removed to a hospital adapted especially for contagious cases. Hence the great need for the latter, and provision for the former. Therefore, to have efficient isolation we must have the State's legal enactments and popular support, as well as public and private coöperation, all of which will follow in the wake of an enlightened judgment and a just appreciation of the great responsibility which one individual owes to another, and the public at large.

3 Restrictions and Preventions of Diphtheria. Michigan State Board of Health. Printed 1892.

In view of the importance of isolation, as well as the trouble and inconvenience attending, the questions arising, What cases shall we isolate, and how shall we discriminate? are immediately forced upon us. Some cases of sore throat having an exudate are contagious and some are not. Under such circumstances it is always safe, particularly during an epidemic, to look upon all such with suspicion and treat the same as diphtheria, at the same time securing some of the exudate for microscopic examination, to determine as early as possible its true character.

The Klebs-Löffler bacillus is the only micro-organism always and persistently present in the exudate which, if found, establishes the diagnosis.[4] To do this satisfactorily will require a microscope with a one-twelfth oil immersion objective, and in some cases the bacillus may be detected by simply straining from one-half to three-fourths of an hour a film of exudate previously spread on a cover-slip in a 2 per cent. aqueous solution of gentian violet, wash in a 5 per cent. solution of acetic acid, then in distilled water, dry in air and mount, preferably, in Canada balsam.[5] This plan, however, may be confusing just at a time when it is desired to be positive. To establish which, the inoculation of a culture fluid with a portion of the exudate will be necessary, which after about eighteen hours in the incubator, if successful, will under the microscope reveal the character of the bacillus, which culture, if desired can be used to ascertain its pathogenic properties by inoculating a rabbit or guinea pig. If the practitioneer is fortunate enough to possess a good microscope, culture incubator and other appliances, he may possibly settle the question in doubtful cases. If not he should send a sample of the exudate on clean, white paper, securely bottled, to a competent bacteriologist, who can in twenty-four hours determine its nature. Every Board of Health should have such a salaried appointee to carry out such investigations. It having been determined that the case is one of diphtheria the patient is isolated, if he has not already been, in the upper story of the house which has been previously cleaned and divested of all drapery, upholstery, carpets and everything excepting the barest necessities for the proper care and comfort of the patient, and at the disposal of the attendants, for more than one will be required in severe cases.

They should be furnished with one or more large pails containing a 1-1000 disinfecting solution of corrosive sublimate, into which bed linens and garments of whatever character should be immersed before taken from the room. Being free from the rattle of tin, two marked papier-maché basins, one to contain the disinfecting solution before mentioned,

4 Annual address on the Causation of Diphtheria, by Wm. H. Welch, M. D. Transactions of Medical and Chirurgical Faculty of Maryland.

5 Löffler's Method.

as the best in our judgment, and the other for water convenient for the attendant's ablutions after necessary contact with the patient. Two or more covered chamber buckets, one always near containing a quart or more of a solution of chlorinated lime in strength of half a pound to a gallon of water, for the reception and disinfection of alvine dejections and promptly removed from the room, but allowed to remain in the bucket two or more hours before emptying into the closet. In this connection there should be a liberal supply of towels and soap with a view to the absolute cleanliness of the person and the surroundings. A spitting cup containing an 8 per cent. solution of carbolic acid to receive the secretions and expectorations from the mouth, throat, lungs and nose; or a better plan is to receive such material on soft muslin rags, toilet paper or small squares of cheese cloth, immediately burned. Hence, the necessity in the room of an open grate, or stove, in which such expectorations can be cremated. Such secretions being the most infectious, because, containing the diphtheria bacillus, should be most carefully guarded and utterly destroyed. In absence of an ordinary stove, a gas or perhaps the objectionable coal oil stove, on which, with a view to prevent dryness of the air in the room and to disinfect the same, a vessel containing the following should constantly be kept simmering, a modification, we believe, originally suggested by Dr. J. Lewis Smith, N. Y.:

℞ Ol. cinnamoni . . . . . 30 parts
Ol. eucalyp. . . . . 180 "
Acid, carbolic. . . . . 220 "
Ol. terebinth. . . . . 420 "
M. Use one ounce to a quart of water.

An adjoining room should be appropriated to the use of the attendants, to the door of which needed supplies should be brought, and from which disinfected articles be removed for further disinfection with boiling water. The visits to the kitchen by the attendants, where other members of the family are, perhaps children, should not be allowed. To, or in this room, provisions can be brought and prepared as ordered for the patient, which brings us to the subject of

FOOD.

In order to support the strength of the patient, the proper nourishment is a matter of the most vital importance. Though anorexia is generally persistent, systematic feeding should be instituted early, and of such character as is suitable to the age and condition of the patient. Fluid nourishment being most tolerant to the stomach; as milk, warm or peptonized, cold milk, beef juices expressed from broiled beef, beef peptonoids and other food more concentrated, as eggs, soft boiled, eggs and milk; and when stimulants, which are required early in severe

cases, eggs and milk beaten up with brandy, also milk punch, should be judiciously given.

In those cases where there is an unwillingness, or as is frequently the case, an inability to swallow nourishment, enemata of the articles just mentioned should be resorted to early, freely and continuously, until convalescence. This cannot be emphasized too forcibly, for by the early and continued support and maintenance of the vital powers, we thereby assist nature to resist and withstand the septic influence of the disease, and thus we often accomplish more than by over-much medication.

LOCAL TREATMENT.

The necessity for seeing diphtheritic cases early, cannot be over-estimated and in our judgment should justify the request, on the part of the family physician, for a speedy summons in time of sore throat epidemics especially; for success in a great measure will depend upon the local treatment being employed early, vigorously and with a view to destroying the diphtheria bacillus and preventing the absorption of the poison, now known to be tox-albumen. To accomplish this desirable result in

PHARYNGEAL DIPHTHERIA:

First, disinfect the throat; and second, remove the exudate as fast as it forms:

To accomplish this, begin by spraying the throat with a 1-1000 aqueous solution of mercuric chlorid, using one of the many atomizers, or if the child is sufficiently intelligent have it gargle with the same solution, which will make the throat safe to work with, to be repeated every three or four hours. Then by means of brush or cotton swab, patiently and with care dissolve the exudate, by applying the following:

℞ Papayotin or trypsin[6] . . . . . gr. lxx
Hydrar. chlo. cor. . . . . gr. ¼
Aqua distil . . . . . f. ʒ iv
M.

Apply every half hour until the membrane is dissolved; and at the same time every half hour alternately, disinfect the throat by using one of our safest antiseptics; the peroxid of hydrogen, though not a germicide[7], accomplishes the same result by interfering with the development of the bacillus. Spray the throat, using from one-half to 15-volume solution, or full strength, which will aid in dissolving the exudate in its formative stage, but fails to do so later, when imbedded in necrotic

6 The best at our command being papoid.

7 George M. Sternberg, M. D., on Disinfection, Hare System of Practical Therapeutics.

tissue, for which reasons these applications should be faithfully applied, not even allowing the patient's sleep to interfere; for very frequently the fate of the case depends upon the first twenty-four hours of local treatment, which if persistently and efficiently done, we have reason to believe that the septic influence of the bacteria may be prevented, and instead of a lingering case, we will have a rapid recovery of the patient. We, however, cannot afford to confine our remedies to one or two, but suit the remedies to the case; hence, another very valuable and safe disinfectant and good antiseptic successfully used, where the other might be inapplicable, is a ten grain solution of the nitrate of silver. The solid stick or even a too strong solution, makes it difficult to distinguish the resulting coagulated albumen from the diphtheritic exudate; besides, we have thought that its frequent application tended or predisposed the inflamed mucous membrane to a necrotic condition finally resulting in hœmorrhage.

The forcible removal of the exudate and the application by means of cotton wrapped on a pincett, of the following:

℞ Camphor . . . . . 20 parts
Castor oil . . . . . 15 parts
Alcohol . . . . . 10 parts
Carbolic acid . . . . . 5 parts
Tartaric acid . . . . . 1 parts
M.

is recommended by Grancher[8] also Dr. Turner of Glasgow, suggests a similar treatment but uses the application of parafin. Being painful the treatment though successfully used in adults, is inappropriate with children, and further the danger of absorption from the wounded surface would be increased. The same objection would apply, it seems to us, to Dr. August Seibert's disc of hypodermic points, through which chlorin water is injected to destroy the bacillus, as it is now known that the bacilli are mostly on the surface of the membrane.

Since the use of corrosive sublimate, first by Billotte in 1876, it seems to be growing in favor. Rennert, of Germany, reports repeated successes, by wiping off the exudate with the following:

Hydrarg. chlo. corrosiv . . . . . 1 part
Acid tartaric . . . . . 5 parts
Aqua . . . . . 1000 parts.

The remedy is being largely used in England.

In very young children, the repeated insufflation of washed sulphur, an application which can be thoroughly made where we fail with many other applications, by simply using a glass tube. The good resulting

8 Le Progrees Med., Sept. 27, 1890.

may be attributed to the disinfecting properties of sulphurous acid, set free by the oxidation of the sulphur.

As a topical remedy, we have used the perchlorid of iron in combination with glycerin, equal parts. In hœmorrhagic cases it does well. With many it is the principal local treatment.

Carbolic, boracic and salicylic acid, have their appropriate use as antiseptic gargles and sprays, but as every intelligent physician has his own way of using means to ends, these with many others, if time permitted, could be named as suggestive of the fact that it is unwise to restrict our remedies, but treat each individual case, not the disease. Keeping in view and preventing if possible, the tendency of the disease to extend to the larynx as well as to the posterior nares. If to the latter we have,

NASAL DIPHTHERIA.

The nasal passage may be the primary seat of the disease; frequently, however, it is the extension of the pharyngeal affection. This complication is recognized by the forced mouth respiration, the nasal passages being closed by the swollen mucous membrane which is covered with a grayish white lining, discharging a thin acrid muco-purulent discharge which later on, becomes greenish yellow tinged with blood.

The glands in the neck soon become involved, with earlier constitutional involvement than in the simple pharyngeal variety. These unpleasant cases are difficult to manage on account of the intricate nasal passage which should be disinfected early by douching and spraying the nasal fossæ.

The former can best be done by means of a perforated flexible rubber catheter, attaching the same to any ordinary syringe, and by bending the patient's head forward, the nasal cavities can be thoroughly and effectually douched, preferably with the peroxid of hydrogen, every three or four hours.

The nasal passage may be sprayed with the same remedy, also with a weak solution of carbolic acid, or the corrosive chlorid, but some instructions to the inexperienced attendant will be necessary to the careful introduction of the nozzle of the atomizer, keeping it on a level with the floor of the nasal fossæ and parallel with the septum, so as to prevent wounding and the resulting hœmorrhage. The greatest cleanliness should be observed in these cases, using the 1:1000 chlorid wash, and the cremation of all nasal discharges. But as intimated the exudate may extend to the larynx and the result is the most dangerous phase.

LARYNGEAL DIPHTHERIA.

Though the duality of membranous croup and diphtheria is not absolutely settled, yet the fact of their unity, being so regarded by physi-

cian's generally, and acted upon approvingly by boards of health is accomplishing good as a check to its spread. The bacillus may primarily attack the windpipe, but like the nasal form it is frequently the extension of the disease into the larynx. Its commencement may be recognized by a hoarse croupy cough with aphonia and later a gradually increasing dyspnea. These symptoms sometimes subside in a few days under the internal treatment of bichlorid and spray of the same from a steam atomizer, also lime water and 2 per cent. solution of carbolic acid, or, the steam from lime slaking in any ordinary vessel having a perforated lid, to which a tin tube or pipe can be conveyed into a tent constructed over the child—not forgetting proper ventilation—or to the mouth of the patient. We cannot expect, however, as much from our spraying and local applications which are so beneficial in the laryngeal and nasal form of the disease. In this connection and in this form of the disease, we wish to call attention to a remedy, the results of which have been recently so satisfactory as to justify further trial, namely, oxygen. It should be given early because of the better oxidation of the blood. The increased tone and strength, both to the nervous and muscular system resulting from the improved condition of the blood, allays nervous irritation and excitability and produces sleep. All of which tends to assist the vital powers of the system to battle with the disease. Three inhalations in succession of about twenty seconds each, allowing the gas to pass through a jar of antiseptic water, should be given three or four times daily, or oftener, when there is labored breathing or a cyanotic condition. But should the dyspnea increase, preparation will have to be made to intubate or perform tracheotomy which leads us into the domain of surgery, upon which it is not our purpose to enter, further than to state that either operation gives the patient about equal chance. Dr. Stern makes the per cent. of recoveries of the former 26 2-5 per cent. and the latter 26 1-2 per cent. The same auther recommends intubation under three and a half years of age, and after that time the preference is for tracheotomy, excepting adults. Dr. Montgomery, however, who has had a large experience in intubating writes us that he has had 44 per cent. of recoveries. But in our treatment we should not forget

CONSTITUTIONAL REMEDIES.

Just how soon the poison of diphtheria is taken up by the absorbents, and how much or how little is required to contaminate the system, we have no reliable means of determining. That it is absorbed very rapidly we have only to recall the cases in our experience of heart paralysis after a few days of illness, and the amount to produce septic influence may depend largely upon the susceptibility of the person. But Welch

and Flexner have shown that 2 cc. of filtered culture fluid contained toxic properties sufficient to kill a guinea pig. So it is well to begin internal remedies early, and we can make no mistake by giving the chlorid of iron and quinin in large doses suitable to the patient three or more times daily, so as to obtain not only the tonic effect of both, but the antiseptic influence of the iron; or alternate or substitute for the iron the following:

℞ Hydrar. chlo. cor . . . . . gr. jss. (1½)
Syr. aurant rub . . . . . .
Aqua aa . . . . . f ℥ j.
M.

Take from one-half to a teaspoonful every six hours. The object being, as Dr. Jacobi suggests, "to have its specific counteracting effects on the diphtheritic poison in the system."

Chlorate of potash is looked upon with less favor than formerly, because of its unfavorable action upon the kidneys.

The complications or sequelæ of diphtheria in the form of paralysis of the uvula, arms or legs, can best be relieved by general tonics, change of air; we have found a sojourn by the sea of great benefit. Obstinate cases yield to hypodermic injections of strychnia, from 1.20 to 1.60 gr. three times daily. Electricity will also be of service.

Instead of summing up conclusions, allow us to say a word in reference to our future hope—

PROPHYLAXIS.

1. Against personal infection, physicians and attendants should gargle the throat, wash the nasal passages, face and hands before and after visits, in 1-1000 solution of corrosive sublimate, and nothing short of a change of garments is excusable in going from a diphtheritic case to other patients.

2. This paper would be more incomplete than it is, did we not refer to what modern bacteriologists are accomplishing for us, particularly concerning the prevention and cure of the toxic products producing the morbid symptoms which we more or less see in every case of diphtheria.

Dr. E. A. De Schweinitz, Biochemic Laboratory, Washington, D. C., replying to our query, writes: "Experiments in this country and abroad have demonstrated that a substance (albumose) exists in and can be isolated from the cultures of the diphtheria bacillus which produces, when injected into guinea pigs, immunity in those animals from this disease." Hardly had we begun to ask the question, Why can not this immunity be safely rendered to man? when we learn from Germany that "blood serum" from immunized animals is an anti-toxine which gives immunity to the individual, and that Dr. Aronson of Berlin,

claims for his blood serum immunizing strength of 1-10000 for guinea pigs; for children weighing forty-four pounds; 4 ccm. given subcutaneously, which doses afford positive protection if injected before infection; being inefficient in the disease's later stages.

But "later investigations, particularly Behring, have proved that this property of blood serum to counteract the bacterial poison may be progressively intensified, so that by repeated inoculation, a complete immunizing strength can be obtained, potent even against super-virulent bacteria cultures. The injection of blood serum from such animals afforded not only protection against virulent infection, but aborted the already present infection and made it harmless, and therefore proved *a specific cure* for the indicated disease." If these facts can be established in this country and elsewhere, surely the "goal of therapeutic effort" is reached and the glory for the second Jenner is in reserve.—*The Journal of the A. M. A.*

REPORTS OF SOCIETIES.

RHODE ISLAND MEDICAL SOCIETY.

QUARTERLY MEETING HELD IN TILLINGHAST'S ASSEMBLY ROOMS, PROVIDENCE, R. I., DECEMBER 7th, 1893.

AUTHORIZED REPORT.

THE meeting was opened by the President **Dr. Robert F. Noyes,** at 11 o'clock. The records of the last meeting of the Society were read and recorded, **Dr. W. R. White,** Secretary.

The President, Dr. Noyes, spoke as follows: "The duties of the President of the Society are various. Some of them are pleasant and some of them are painful.

It is painful for me to be obliged to announce to the Society that any one of our Fellows has died, and especially it is painful for me to be obliged to say to you that since our last meeting in September five of our Fellows have passed away. First in the early part of September we lost

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George E. Carpenter, M. D., of East Providence, who joined the Society in 1875. His illness was brief. He fell a victim to Broncho-Pneumonia. We had not forgotten our loss when a little later in the month we learned that

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George F. Bliven, M. D., of this city, and a Fellow of our Society, had died. Dr. Bliven of late had not been engaged in the practice of medicine but mercantile business had absorbed his attention. His sickness was short but painful. His disease was appendicitis which early assumed a septic character. We had scarcely laid away our deceased brother, and had not forgotten that death had twice very recently entered the ranks of our Society, when we lost on the 30th of September

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William F. Hutchinson, M. D., a Fellow of the Society since 1873. Dr. Hutchinson died suddenly while calling at the house of a friend in this city, of organic cardiac disease. Although aware of his affliction and supposing that his demise would be sudden, yet he continued as he had wont to be active in his profession and in travel. None of our Fellows were more ready to serve the Society in any capacity, when invited, than our late brother Dr. Hutchinson. He was a fluent speaker, a facile writer and gratified the audience which he had the honor to address. Late in October we were again called upon to mourn the loss of another Fellow of our Society. At this time the much respected and beloved

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Charles H. Fisher, M. D., a Fellow of the Society for more than forty years, Ex-President of the Society, and at the time of his death the efficient and able Secretary of the Rhode Island State Board of Health, died in Buffalo, of Pneumonia. Dr. Fisher was visiting that wonderful exposition at Chicago when attacked with his fatal disease, and hastening home fell a victim before he could complete his journey. In the last part of November we were again, and for the last time since the meeting of the Society in September, called upon to chronicle and to mourn the death of

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Herbert J. Pomroy, M. D., a Fellow of the Society since 1881. Dr. Pomroy was in vigorous health and an able and promising man in his chosen specialty. He died very suddenly from some cerebral trouble.

So that five Fellows since the last meeting have passed away. Three of them were young men, the fourth a little older, and the last is not termed aged. It falls to my lot to announce to the Society the decease of our Fellows. It falls to our Committee on Necrology to prepare later, such memoirs as shall, in their best judgment, seem the most fitting."

A communication from

Dr. William B. Atkinson, Secretary of the American Medical Association, in reference to a Resolution regarding the framing of new laws, and the enforcement of those now in existence relative to the examination of medical practitioners, and asking for any suggestions that this Society may desire to make. Upon motion of the Secretary it was voted that this communication be referred to a committee of three, to be appointed by the Chair, and that this Committee consider the three articles and report upon them at the next meeting

The President appointed the following members to constitute that Committee:

Dr. W. R. White, Dr. H. G. Miller, Dr. Wm. A. Gorton. The Resolutions are as follows:

Resolved, That the respective State Medical Societies entitled to representation in this Association, and through them their affiliated local societies, are hereby requested to consider the matter of revision of the Code of Ethics and report to this Association at its next annual meeting; and if any alteration be deemed advisable, each State Society so deciding to specially indicate the part to be changed and write out in full the new form proposed.

Resolved, That the State Medical Societies in such States as do not now have legal boards for the examination of persons desiring to become practitioners in such States, are requested by this Association to use their influence to have the States to create such boards by statute.

Resolved, That the several State Medical Societies are hereby requested to use their influence to have statutory restraint in their respective States placed upon the sale of poisonous and mischievous medicines, except when prescribed by legally qualified persons.

A communication from the President of the Medical Society of the District of Columbia was received, announcing that the seventy-fifth anniversary of that Society was to be held February 16, 1894. Upon motion of **Dr. Burge, Dr. William H. Palmer** was elected representative of the Society to attend the meeting.

The report of the Board of Censors was received. They held a meeting December 7th.

Present, Doctors **Jencks, Kingman** and **White. Dr. Jencks** was elected President and **Dr. White,** Secretary. Sixteen applications for membership were considered. The President announced the following appointments as delegates to the various Medical Societies:

Maine, **Dr. F. M. Eaton, Dr. William E. Wilson.**
New Hampshire, **Dr. E. B. Smith, Dr. J. F. McCusker.**
Vermont, **Dr. William R. White, Dr. Harold Metcalf.**
Massachusetts, **Dr. W. A. Gorton, Dr. Henry Ecroyd.**
Connecticut, **Dr. A. B. Briggs, Dr. John Champlin.**
New York Medical Society, **Dr. F. H. Rankin, Dr. W. J. McCaw.**

New York Medical Association, **Dr. John M. Peters, Dr. James H. Kingman.**

New Jersey, **Dr. M. P. Mahoney, Dr. I. S. Cooke.**

Dr. Wm. J. Burge was nominated by the Censors, anniversary chairman for 1894, and the nomination was confirmed by the President. In accordance with Chapter 3, Section 4, of the By-Laws, the President appointed **Dr. Geo. D. Hersey** to prepare a paper giving a review of the work of the Society during the past year to be read at the annual meeting in June.

The following Resolution was read by the Secretary:

Whereas, Several members of the Rhode Island Medical Society have started and are publishing a medical journal under the name of the R. I. Medical Science Monthly, said journal being now one year old and in a prosperous condition, be it

Resolved, That the publishers of the R. I. Medical Science Monthly, be, and they hereby are, given consent to have present their stenographer at all meetings of the Rhode Island Medical Society, with permission to take notes of, and to publish the proceedings of the Society in said Monthly, and the publishers agree to submit such reports to the President and Secretary of the Society for correction and criticism before publication.

Dr. Taylor moved the adoption of the Resolution on the ground that much of the proceedings of the Society are buried and known to but a few.

Dr. Clark and **Dr. Burge** seconded the motion, stating, "that this Society should give permission to have printed their doings in full."

Dr. Collins stated, that in order to do this, it would be necessary to amend the By-Laws of the Society, and the resolution could not be passed without an amendment to the By-Laws.

Dr. Briggs remarked, that the resolution was prepared with the idea to get the sense of the meeting. "There is nothing in it that conflicts with our By-Laws. We do not ask permission to publish any papers, although we feel we ought to have them, but simply to have our reporter here to report the general proceedings and discussions of the Society. I wish the Secretary would read the section of the By-Laws that refers to this subject."

The Secretary read the section.

Dr. Palmer. "I cannot say that I see any conflict between the resolution and By-Laws as read. Surely, all our transactions are the property of the Society, and are properly referred to a committee; but as has been said, the only difference between the articles in this magazine and what is allowed in the daily papers is, that there shall be a supervision by the members of the Society. It seems to me to be an advantage for the protection of the Society. I should go further and have the papers printed in full. It seems to me that our transactions, and

we do have some very valuable papers coming before the Society, do not reach as many of the profession as they ought. Other journals and other societies throughout the country do not know what we are doing. It would be a stimulus to our members to make known to other societies what we are doing. We get the transactions of other societies through the medical journals, and as we have this firm, composed partly of our own members, for publishing our own doings, it seems to me that we ought to be grateful for their proposition to do so. I hope the resolution will pass."

Dr. Garvin. "So do I. Its success has my sympathy. There are interesting discussions here which do not appear in the transactions. While having the honor to sit here, I have often heard our Secretary say, 'I can only take down the jist of these discussions, a word here and there.' It would be pleasant for those who prepare themselves for discussions, if their remarks were worthy, to have them taken down by a stenographer. I hope there will not be any opposition to this. I hope you will not throw cold water upon what I think is a notable feature."

Dr. Clark. "In seconding the motion I did not suppose there was anything in the By-Laws that conflicted with the resolution, and upon hearing it read, I certainly do not see anything at all. It seems to me proper to encourage them in all legitimate ways and I hope the motion will prevail."

The resolution was passed with but one dissenting vote.

Dr. William J. Burge, one of the delegates to the American Medical Association meeting at Milwaukee, presented a written report, as follows:

Mr. President: "I did not reach Milwaukee until the evening previous to the last day's session of The American Medical Association. I went directly to the new and elegant Hotel Phister, which I found conspicuously placarded as the headquarters of the delegates, and applied for a room. 'All full!' said the clerk, and the groups of noble looking men in the vestibule and corridors led me to believe him.

These men both on account of their fine clothes and distingue bearing I at once recognized as co-martyrs in the service of suffering humanity and I longed to lodge under the same roof with them; but either they were too previous or I was too late, and there was nothing for me to do but to sally forth and hunt for a night's lodging elsewhere. So I went from one hotel to another and received the same reply 'all full,' from so many clerks, that I began to think, like Poe's Raven that, this one expression was the extent of their vocabulary.

Then it occurred to me that perhaps the association had swollen to such enormous proportions that it had pre-empted every available bunk in the city. At last I landed at *The Globe.* The name seemed to promise well for the accommodation of at least one more mortal, but the gentlemanly clerk in dulcet tones sang only that familiar song 'all full.'

By this time my stock of patience was well nigh exhausted, and I addressed him as follows: 'See here my friend, this is the first time I ever struck your beautiful

and enterprising city. I have come more than a thousand miles on purpose to write it up. I am a stranger and an orphan, and it is your christian duty to find me a comfortable place to sleep!'

This mollified him at once, and he suggested that I might find a nice room in the private house adjoining the hotel,—and I did. That night (as I afterwards learned) the delegates were royally feasted and entertained by the nabobs of Milwaukee, all of which I missed, and yet there was a great treat in store for me, viz., the delightful address of Mr. Ernest Hart, which occupied the greater part of the last day's session, the animated and amusing discussion over the selection of the next place of meeting, which was finally decided in favor of San Francisco, and the closing concert at Schlitz Park. The evening was devoted to beer and music, both of which were of a high order and delightfully rendered.

After an instrumental concert in the beautiful grove, we proceeded to the Opera House on the grounds and were charmed by the best amateur vocal performance I ever listened to. There were three young ladies who in voice and style were especially enchanting. When the concert was over, one of the Committee of Arrangements with whom I was talking, remarked, that he must go behind the curtain and thank the performers. Then, said I, 'tell those ladies that a delegate from the biggest state in the union has fallen in love with them.'

In a few moments he re-appeared followed by the three divinities and, much to my confusion, formally presented me to them. One of them asked me if I were married, to which I replied, 'Yea, verily, and very much of a grandfather.'

I shook hands with *Dr. Atkinson*, the permanent secretary, whom I have known for many years, and from his fresh appearance I judged him likely to remain permanent for some distance into the next century.

During my short stay in Milwaukee the weather was perfect, and the only thing lacking to complete my enjoyment of the occasion was the absence of the R. I. Medical Society, or at least half a dozen of its choice spirits, whom I had expected to meet there."

Dr. P. K. Taylor, delegate to the Connecticut Medical Society, presented his report. He said briefly:

"The Society is in a very flourishing condition. **Dr. J. G. Stanton** of New London read a very interesting paper on the *Investigation of Tuberculosis* in man and animal. The principal point touched upon was the greater prevalence of this disease in New England and upper New York, than in other parts of the country, that from 7 to 10 per cent. of the stock was affected with it, but the dangers of infection were counteracted by rendering the milk sterile by cooking. There was a disertation on valvular disease, and several interesting specimens were exhibited. Another very interesting discussion was on appendicitis. The principal point made, was, that it was best not to operate on the first attack but to wait for a recurrence.

The meeting was very interesting throughout, and there was a very large attendance of physicians and surgeons."

Dr. George L. Collins read the first paper of the session on the *Lying-in Hospital.* He was followed by remarks from **Dr. E. F. Walker,** who spoke in substance as follows:

"There are some things, perhaps, which the doctor in his paper has not touched upon and about which I might give some information. In the first place, I would say that the hospital, although we receive pay for surgical treatment, is not in any sense run on the basis that we are going to cater to that class of women who pay small fees. Of course if people can afford to pay for treatment we need it. The

object of the hospital is to do the greatest amount of good in the greatest number of ways. It frequently occurs that we have deserving women who desire and need special care, and that is the class of women we look out for. That is the way we help our profession outside. We want to afford an asylum to that class of patients that it is not convenient for physicians to treat outside. Also those persons who have difficult labors. We have facilities to give them a better chance for recovery than they would otherwise have. Not alone because we have the hospital under the most perfect arrangements but on the other hand, we have among our consulting staff the best physicians in the city.

Another point that I want to call your attention to is the fact that we offer peculiar aid to children, peculiar advantages to children from the fact, as Dr. Collins has stated, that we have a matron who is exceptional in tact. Not in knowledge but in "tact" in the care of sick babies. I imagine there are a number of gentlemen here who have been quite surprised at the results obtained in the treatment of immature children. So far as the expense is concerned the charges are from $2.00 to $10.00 per week, and it can hardly be possible that any one cannot afford to pay that amount, which is less than they can get them taken care of by putting them out to board. If the parties cannot afford to pay ten dollars we put them on another basis. We want the medical profession at large to know, where there is a deserving case requiring care, that they can send it to the hospital and they can receive it."

Dr. Palmer. "I would like to know if the management of the *Lying-in Hospital* permits its agents to assist or co-operate with many of those young or unfortunate mothers in finding an adopted home for their children, and if they would be permitted to certify to the health of the child, or whether they are debarred from giving any such information in the matter?"

Dr. Collins. "My impression is that in cases where it is desirable to send children out for adoption, that the members of the hospital help to secure suitable places, and it is not incompatible with the interests of the institution. My impression is that they have sent them out for adoption to the satisfaction of all concerned."

Dr. Garvin. "I think no statement was made as to the mortality. I would like to inquire also as to their experience with the incubator?"

Dr. Collins. "That is a question I cannot answer."

Dr. Walker. "As to the mortality in the institution I think that among the cases that have been treated with the incubator there have been four, and three of them recovered, that is 75 per cent. Sometimes, I will say, that it does not seem to work as satisfactorily as in other ways. To tell the truth, the matron is not very much in favor of the use of the incubator, the heat is almost too intense, she has in many cases substituted for that simply hot water bottles, and by putting the infants close to the stove, where they are kept warm enough."

The President, Dr. Noyes. "We are thankful for Drs. Collins" and Walker's valuable contributions and I can testify to the beneficial results derived from carrying young children to the hospital for treatment."

Dr. Burge. "What has the mortality been of mothers?"

Dr. Walker. "I think we have had five deaths in the entire service.

The First death was due to Bright's disease.

The Second was a dwarf, whom **Dr. Mitchell** operated on. She came in with bronchitis, and with the determination to die. She made up her mind that she never wanted to get out of the institution. She died of pneumonia.

The Third was a Jewish woman, transferred from the R. I. Hospital also with Bright's disease, chronic, and she died from that cause.

The Fourth was due to lack of care before she came to the hospital. Her case was pure neglect.

The Fifth was a woman in her third week of convalescence. She died from cerebral embolism.

We have averaged less than one per cent. loss from deaths, and I think we have been particularly fortunate."

Dr. Robert Newman, of New York, read a paper on *Electrolysis in Urethral Stricture.* He exhibited the action of iodide of potassium when the positive and negative poles were applied to the mixture. He also exhibited the instruments he used, and explained the *modus operandi* of application. He used four sets of electrodes. A galvanic battery is used in these cases. The instrument is introduced well down to the stricture. He said: "I never use more than five minute tests, and insert it very slowly and make the application slowly. No pressure must be used. If there is a second stricture, that must be treated as the first and so on. Of the cases making application for treatment at least twenty-five per cent. have no stricture." This paper will be published in full in another number.

Dr. J. F. McCusker discussed the paper read, and presented in a well written discourse the views of those opposed to the employment of electrolysis in these diseases.

Dr. Herbert Terry followed by stating that he had not had much experience in the treatment of stricture by electrolysis, and cited two cases where he used the Macintosh battery.

Dr. Newman stated that he had statistics of 1,577 cases which had been successfully treated by electrolysis, and if some doctors fail, it rather shows their unfamiliarity with the treatment and not that the use of electrolysis is ineffective in curing.

Dr. J. Frederick Haller read a paper on *Aphasia*, and presented the case to the Society.

A CASE OF APHASIA.

"This patient, Mrs. M. C., is 60 years old. She has one daughter living in Chicago who is perfectly well and mother to several children. Eight years ago her husband died. There is nothing unusual about her family history except that parents were of a nervo-sanguine temperament. She, herself, has always been very bright and intelligent.

She lost a great deal of money about five years ago, it being poorly invested for her by her lawyer, and from this time we date her present illness.

It came on suddenly, so we must assume that there has been a sudden disturbance of those centres which govern speech and the expression of thoughts and im-

pressions in words, hœmorrhage very likely. She does not grow worse, but remains about the same as she was when the disease first made its appearance, so we must leave out softening, abscess, tumors, hysteria, hyperemia or anemia at present, and assume that the cause might have been intense emotion causing a sudden shock, with hœmorrhage and thrombosis,—interference with the blood supply of the centres, or excerting pressure upon them—perhaps. I will also state, that I am unable to find any subjective or objective signs of syphilis.

Aphasia is an inability to express thoughts in words or interpret perceptions, and is usually divided into *Motor-Aphasia*, where the patient has lost the use of the mechanism whereby thoughts are converted into words, entirely or partially, and this disturbance we look for in the left inferior frontal convolution. Our patient has certainly *Motor-Aphasia.*

Sensory Aphasia is an inability to interpret perceptions and there are many varieties of this. As our patient cannot entirely interpret perceptions she is also suffering from *Sensory Aphasia.* We look for this lesion in the supra marginal and angular gyri of the left side as well as in the first and second temporal convolutions.

As our patient presents symptoms of both, we must put her case down as a case of *Partial Amnesic Aphasia*, or disturbances arising from lesions of both centres and the connection between them.

If I bring out some of the characteristics of the disease I think you will agree with me in this conclusion.

She goes away from home, sometimes loses her way, and once took the train to Boston where she was picked up by the authorities and as she could not be identified, she was sent to a public institution near Boston, where she remained for six weeks, but was finally found and brought back. Since then her address and name has been sewed onto the inside of her cloak. She is often lost wandering around on the streets and has just been returned from Johnston. She hates policemen because they always have to take her into custody and bring her home. Possibly also from the fact that they go through her pockets for anything whereby to identify her. She went to church some time ago and when the minister spoke kindly to her she pulled his whiskers. She is always pleasant and smiling. If we ask her where she lives she will say "generally." She watches over her pocket book very closely and always points to it and says "business."

At the time of eight in the morning, twelve at noon and six at night, or thereabouts, she looks around for something to eat. She goes out into the kitchen and asks: "anything started?" She will partake of no food at other times. At table she will help herself if you don't give it to her.

She does not know enough to wash herself unless you get water ready for her. Attends promptly to wants of nature. She is contented if she has some work to do like sewing.

She calls a chicken a "fly" and anything that moves is an "insect" to her. She hates dogs and children. Music or singing seems to awake in her no sense of appreciation or interest. If a stranger comes into the house she is very careful and watches him very closely and says "some one there." She hears voices, even the lightest very keenly and the ticking of a clock seems to bother her. If you try to make her do anything she does not want to do, she will say, "Have mercy upon us, Amen."

She is very curious and wants to finger everything in childish fashion. She reads the Bible sometimes, the commandments and a few other passages aloud, but misplaces words. In newspapers she seems to recognize names she has seen once.

These symptoms would rather indicate a combination of *Motor* and *Sensory Aphasia*, or as I said before, *Partial Amnesic Aphasia.* She seems to have some

recollections of the past but to all new impressions and perceptions her brain is almost blank. What an unhappy condition. As to the

Prognosis we can do nothing for her. Her disease is incurable. She may die soon or she may live for many years, and will probably die from softening, hœmorrhage, or other extension of the lesions. Were it caused by syphilis or hysteria, there might be a chance of a cure, but as it seems to be caused by neither, we can do nothing for this unfortunate woman except to make her as comfortable as possible."

Dr. F. B. Sprague read a most interesting paper on eleven cases of *Acute Inflammation of the Mastoid*, with history and treatment. These cases occurred during the year previous to September 1893.

The discussion of Dr. Sprague's paper will be continued to the next meeting.

Dr. Frank L. Day reported twenty-seven cases of *Intubation of the Larynx* giving a history of intubation and its results.

The society was honored by the presence of

Dr. George W. Gay, Surgeon of the Boston City Hospital, who discussed the paper as follows:

"Before I say anything on this interesting subject I want to thank you for the kind invitation you have extended to me to come here and also for the privilege to say a few words on intubation for the relief of laryngeal obstructions.

There are some points often lost sight of in endeavoring to relieve membraneous croup, and those are three factors, which are apt to determine the result.

First. Sepsis.

Second. Bronchial extension.

Third. Laryngeal stenosis.

The treatment by intubation has to do with one of these three factors. It has nothing to do with the other two, and whether the patient gets well or dies is not the question. In considering these operations, the question to be decided is; does the operation of intubation relieve the dyspnoea? The other two factors are a different matter entirely and have only relation indirectly to the relief of dyspnoea. With that foundation to start upon we are ready to consider the advantages or disadvantages of intubation.

From the time the Boston City Hospital was established in 1864, up to the first of October 1893, 569 cases were treated by tracheotomy and 579 cases by intubation. The percentage of recoveries by intubation was 18% and the percentage by tracheotomy 21%. I am not a great admirer of statistics. They vary so much at different times. As Dr. Day has well stated, the type of the disease determines the result of the treatment. In some epidemics the type has been mild and in other cases the type has been severe. In one year I did 21 tracheotomies.

Of these 10 recovered. Since that time my success has not been as good. Therefore, statistics are to be taken with a great deal of allowance. Some surgeons prefer to use the knife; they rather see with their eyes than with their fingers. Now there is another point; does tracheotomy save cases where intubation fails? No; it does not. Tracheotomy has been done 72 times and only 7 cases recovered. Then there are cases where tracheotomy has saved life and intubation failed. The advantages of intubation are: It is not a surgical operation in the eyes of the patient. There is not a great parade of instruments. The child is simply wrapped in a blanket, and it is not much more than an examination of the throat. For that reason it is more available. The parents or guardians will consent to the operation of intubation when they will not agree to tracheotomy, and most surgeons will resort to it much more readily. Tracheotomy is not an operation easily performed. Intubation does not preclude tracheotomy. It is harmless if done properly, and little shock is produced. The main consideration is, that intubation causes as much relief as tracheotomy. In 110 cases at the Boston City Hospital where that point was noted, it was found, that nine out of ten of the patients received sufficient relief, and any treatment that causes relief nine out of ten times is certainly a valuable one. The principal objection is the difficulty of feeding. The feeding is the main thing. It should be constant and persevering. Stimulants are good. The bichloride of mercury does some good. In one case in our town, the patient, 2 years old, took six grains of corrosive sublimate in eight days. The dose was pushed as high as 1-16th of a grain every hour. Aside from mercury I do not know of anything equally good.

There is one thing I would like to enter a protest against. I do not think any of us are called upon to try to remove the obstruction from a septic child by suction. The only way to remove anything from the bronchial tubes is to force air in and drive it out. You know that doctors in this region have lost their lives in doing this, and I do not think it is sufficiently dwelt on in the books. By forcing air into the tubes you do not run any great risk by trying to suck it out. In regard to instruments formerly used much improvement has been made, they have been made stronger, both at the points and the shank. The tubes have been so arranged that they will slip off much more easily. *Dr. Nichols* has invented an instrument where the jaws open parallel and the traction is so great that you can lift several pounds. *Dr. Whitney* has also made an improvement which is very excellent."

Adjourned, and a bounteous lunch, one of Tillinghast's best, was partaken of.

The R. I. Medical Science Monthly,

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Books and monographs, native and foreign, on any of the Medical Sciences, will be reviewed without fail, according to their merits and the space at disposal.

Alterations in the proof involving an excessive amount of work, will be charged to authors at the rate of 60 cents an hour.

Contributors desiring Reprints or Extra Copies of the Monthly can obtain them at reasonable rates by application immediately upon the acceptance of the article.

"The local journal should be first and uppermost in every doctor's affections, and should have his good will and generous support.

"Contributions to its pages should be made often and brief; but it should be the bounden duty of every one to at least once a year make his offering in this channel.

"The subscription price of the local journal should never be allowed to run over, for there is never a time when the local journalist is not doing more for his profession than it is doing for him. The large weeklies should occupy the second position"—*Dr. J. C. Culbertson at Milwaukee, June, 1893.*

EDITORIAL.

As this is the last number of the year 1893, it may not be considered inappropriate for us to say a few words about the Monthly. The Monthly has passed the most trying period of journalistic life—the first year. It has prospered; it has made many friends; it has succeeded in changing the somewhat hostile feelings of some, who did not at first receive it with favor, to friendly interest in its progress;

it has the sympathy of the majority of the profession at home, is quoted often on this continent and occasionally abroad.

The Monthly starts out on the new year with positive assurances that *it has come to stay.* So if any one has nursed a hidden notion (or perhaps a wicked desire) somewhere in his inner soul, that it would vanish, after one year's existence, will be disappointed. It will come out the last week of each month during the coming year and with more promptness than formerly.

ORIGINAL CONTRIBUTIONS.

Authors of papers upon original investigations by themselves or others, are respectfully requested to send them to the Monthly, as we can promise a very wide circulation and will not be outdone by any monthly medical journal as regards reprints, etc.

SOCIETIES.

The *R. I. State Medical Society*, as can be seen by the authorized report elsewhere, has seen fit to vote the Monthly the right to report its proceedings.

The *R. I. Medico Legal Society*, long ago elected the Monthly its official reporter.

The *Washington County Medical Society* of Rhode Island, and the *Windham County Medical Society* of Connecticut, have also permitted the Monthly to publish their proceedings.

The *R. I. Pharmaceutical Association* will, probably at its annual meeting in January next, elect a board of editors to publish a *Department in Pharmacy* in response to an invitation by the Publishers.

The Publishers are very much encouraged by these practical assurances of confidence by the leading professional bodies in this section of New England, and respectfully call the attention of other professional societies to our willingness to serve them and facilities for doing the same.

The Publishers of the Monthly thank all their friends, who have written for the magazine, spoken kindly about it, subscribed for it or advertised in it.

They also entertain the hope that during the year 1894, all their old friends and many new ones will do all they can to make the R. I. Medical Science Monthly interesting and useful. Many able writers in the United States and Europe have been induced to write for it during the year, and we point with much pride to our constantly growing list of able associate editors. The publishers will confine themselves largely during the coming year to arrange and publish the works of others, and to do all in their power to please the great majority of

medical men in this section, who love their work and plain scientific truth, spoken and written without affectation or snobbery. By giving correct reports of the sayings and doings at societies, by interesting accounts of cases of more than usual interest, by keeping pace with the progress of medical science everywhere, by treating scientific work impartially upon its merits, we hope to succeed; and respectfully commend the Monthly to the favor of all professional men for the year 1894. May it be a prosperous one to all of us. The Publishers.

ELEVENTH INTERNATIONAL MEDICAL CONGRESS.

AMERICAN members will pay, on the English, French and Italian railways, single fares for double journeys, and will obtain a reduction of twenty per cent. on fares for Italian round-trip tickets.

The documents required for their identification will be sent to you in January, and Americans intending to visit the Congress will have to apply to you for them.

Full particulars concerning the journeys will accompany the documents.

Messrs. Thos. Cook & Son, London, Paris, Rome, and Naples, should be applied to for accommodation and for tickets for the excursions at Rome, Naples, and to Sicily. Such excursions will be arranged at Rome under the guidance of Mr. Forbes, member of several scientific societies and correspondent of the "Times"—for Naples, three days, including Vesuvius, Pompey, Capri, Sorrento, Castellamare, Bajae, etc.—for Sicily, ten days from Naples, including Messina, Taormina, Catania, Girgenti, Siracusa, Palermo, and return to Naples.

The fares for members of the Congress will be considerably reduced and comprise hotel accommodations, carriages, guides, boats, etc.—about 70 frcs. each, for the three days, and 285 frcs. for the ten days.

Full particulars concerning these excursions will be contained in a leaflet to be added to the instructions and documents for the journey.

From former communications the following are herewith quoted: The members' fee is five dollars, that of their wives or adult relations two dollars each. Checks or money orders may be sent to Prof. L. Pagliani, Rome, Italy. Credentials have been promised in the near future. When they arrive (none were received last year), they may be too late for many who have started or are about to start. The undersigned, who is not informed of the cause of delay, proposes to supply in as official a form as he feels justified in doing, credentials which are expected to be of some practical value. The North German Lloyd has promised to recognize them. It is suggested, besides, that a passport may increase the traveler's facilities.

Only the North German Lloyd (22 Bowling Green) and the Compagnie Générale Transatlantique (3 Bowling Green) have thought fit to grant any reductions to Congressists.

The reductions on Italian railways are available from March 1st to April 30th.

A. Jacobi, M. D.,

110 W. 34th Street, New York.

January 11th, 1894.

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